RANDTRON ANTENNA SYSTEMS

Spiral Antennas

3/4" MILLIMETER BAND SPIRAL ANTENNA

- *18-40 GHz Frequency Operation*
- *Right or Left Circular Polarization*
- *Designed for RWR Application*
- *Qualified for Military Airborne Environment*

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

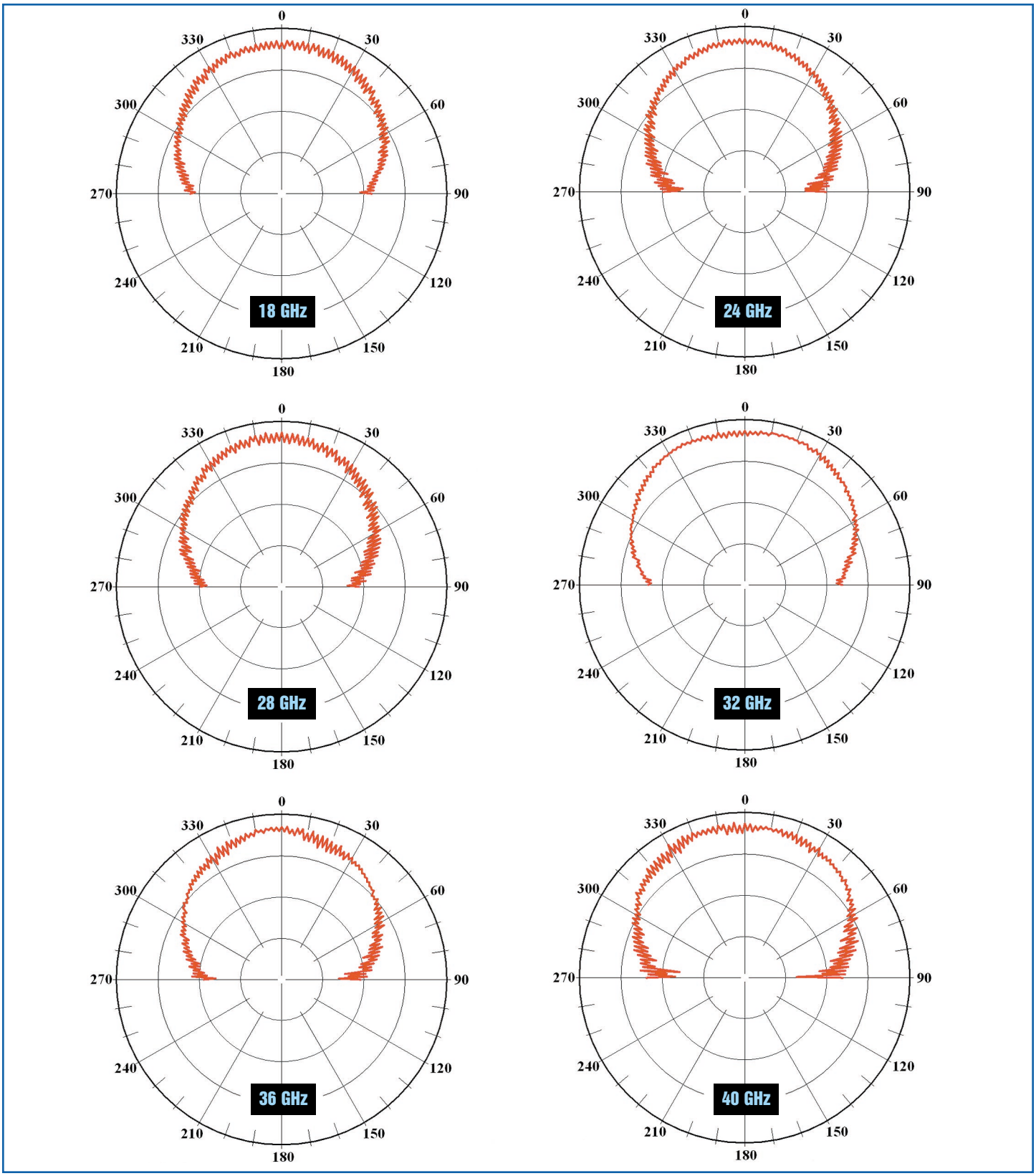
The model 53409 antenna is a rugged, flight qualified, two-arm Archimedean cavity-backed spiral. Our extensive work on the absorber-loaded cavity has produced a proprietary moisture resistant absorber configuration, which reduces cavity depth and improves low frequency gain performance. A Marchand balun is used to connect the spiral aperture card and the input connector.

Originally designed for RWR Direction Finding applications, the small cavity diameter of this antenna also make it an ideal choice for a phase-tracking interferometer element and any application requiring frequency independent Millimeter band performance. The VSWR is generally better than 2:1.

L3 communications

TYPICAL MEASURED PERFORMANCE

The data shown represent "typical" measurement results. Unit-to-unit manufacturing variations and specific radome and installation requirements may affect actual performance.



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

TYPICAL MEASURED PERFORMANCE

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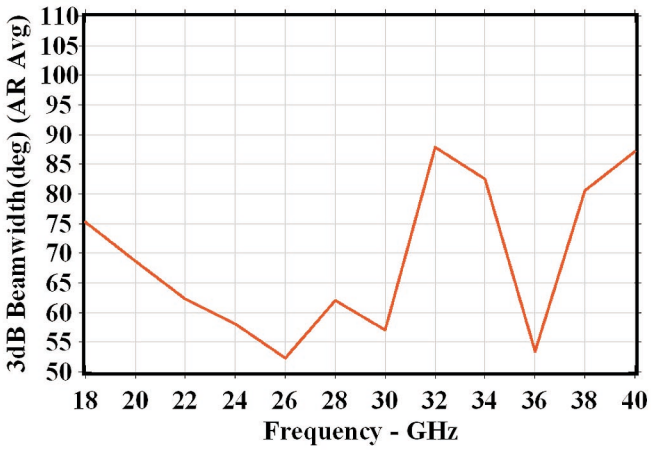
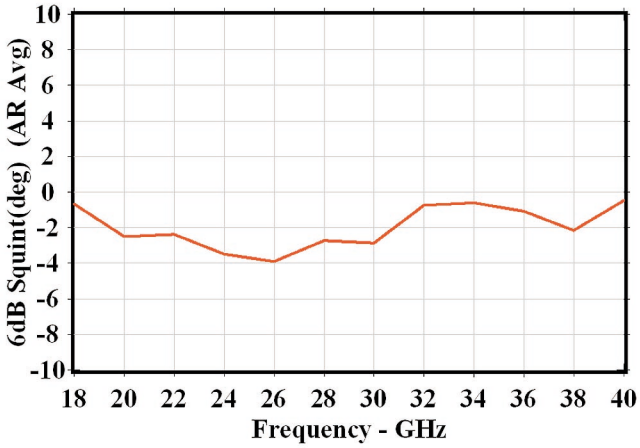
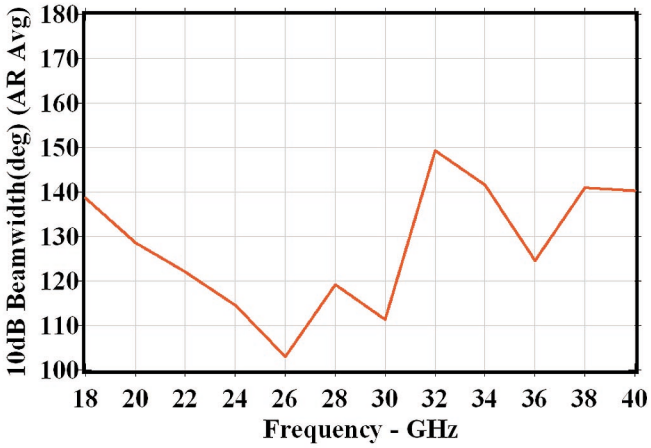
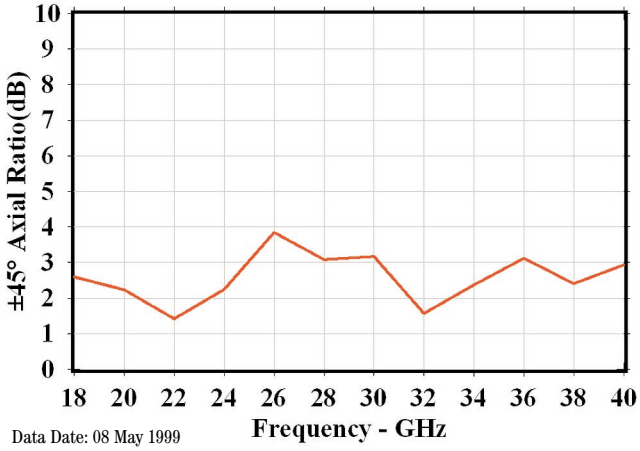
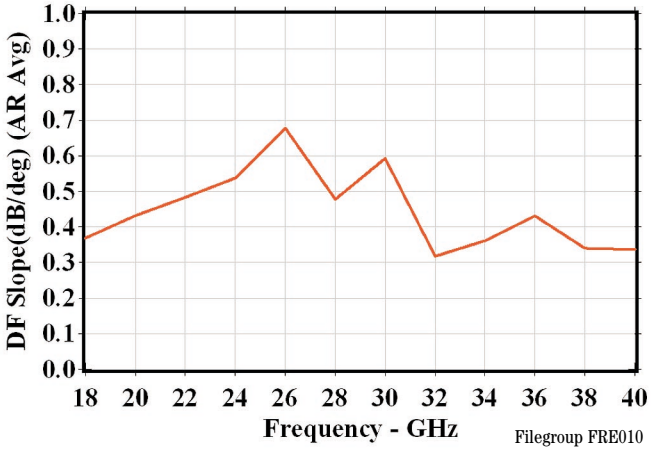




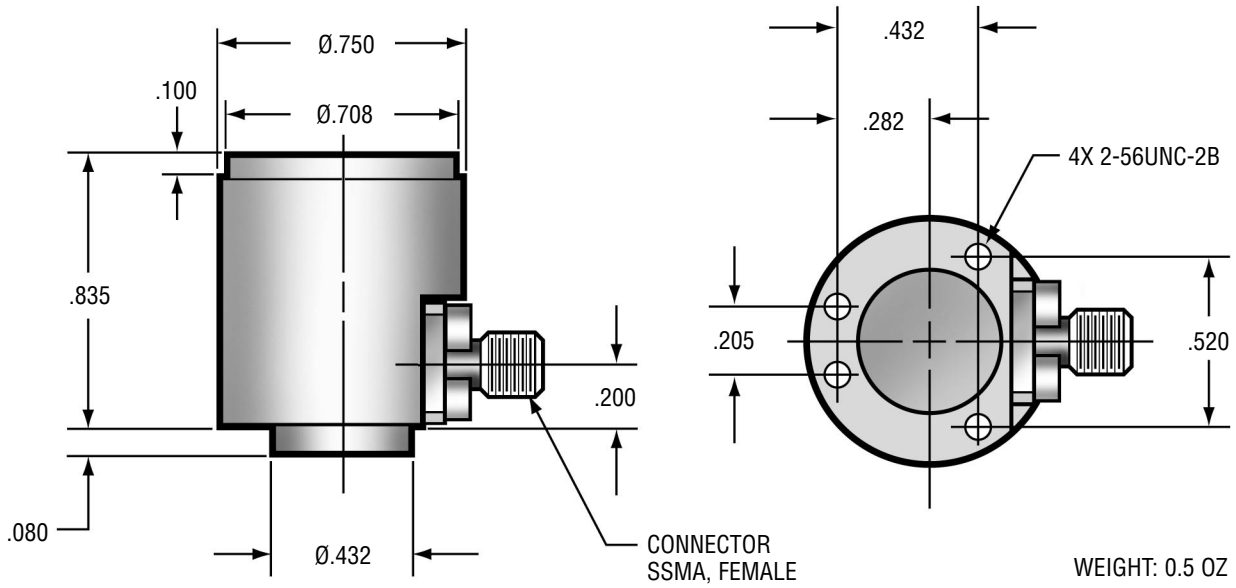






Antenna Performance of Azimuth Patterns

PHYSICAL DIMENSIONS



*Please visit our website at **www.L-3com.com** for more applications.*

communications

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