



CUSTOM **ANTENNA** DESIGN & **RF** SOLUTIONS

SOBERLINK

6-23-22

Purpose of Report: Passive RF Performance and FT matching of EM939000002 (dated 6/20/22)

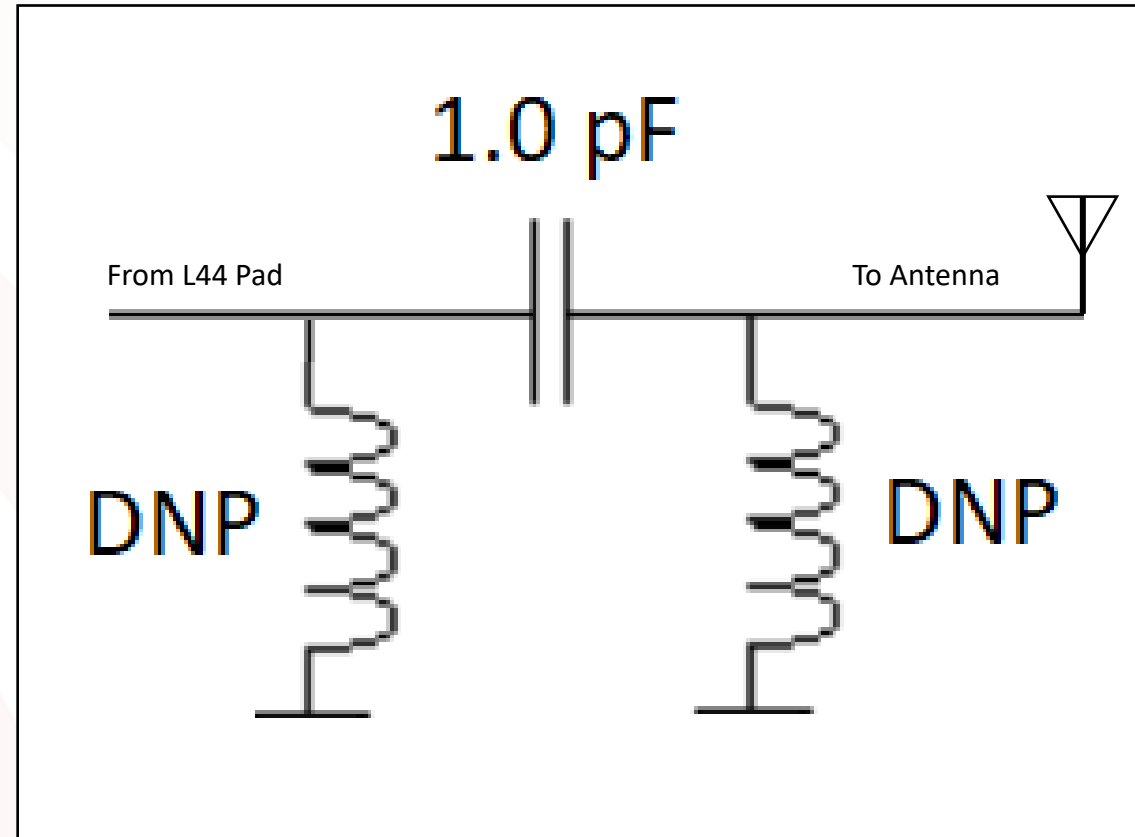
www.fieldtheoryinc.com

- FT Match Topology
- Gain Performance
- Return Loss
- Passive Efficiency
- 1D Radiation Patterns
- 2D Heat Map & 3D Spherical Radiation Patterns

FULLY ANECHOIC 3 METER
ANTENNA CHAMBER

Soberlink

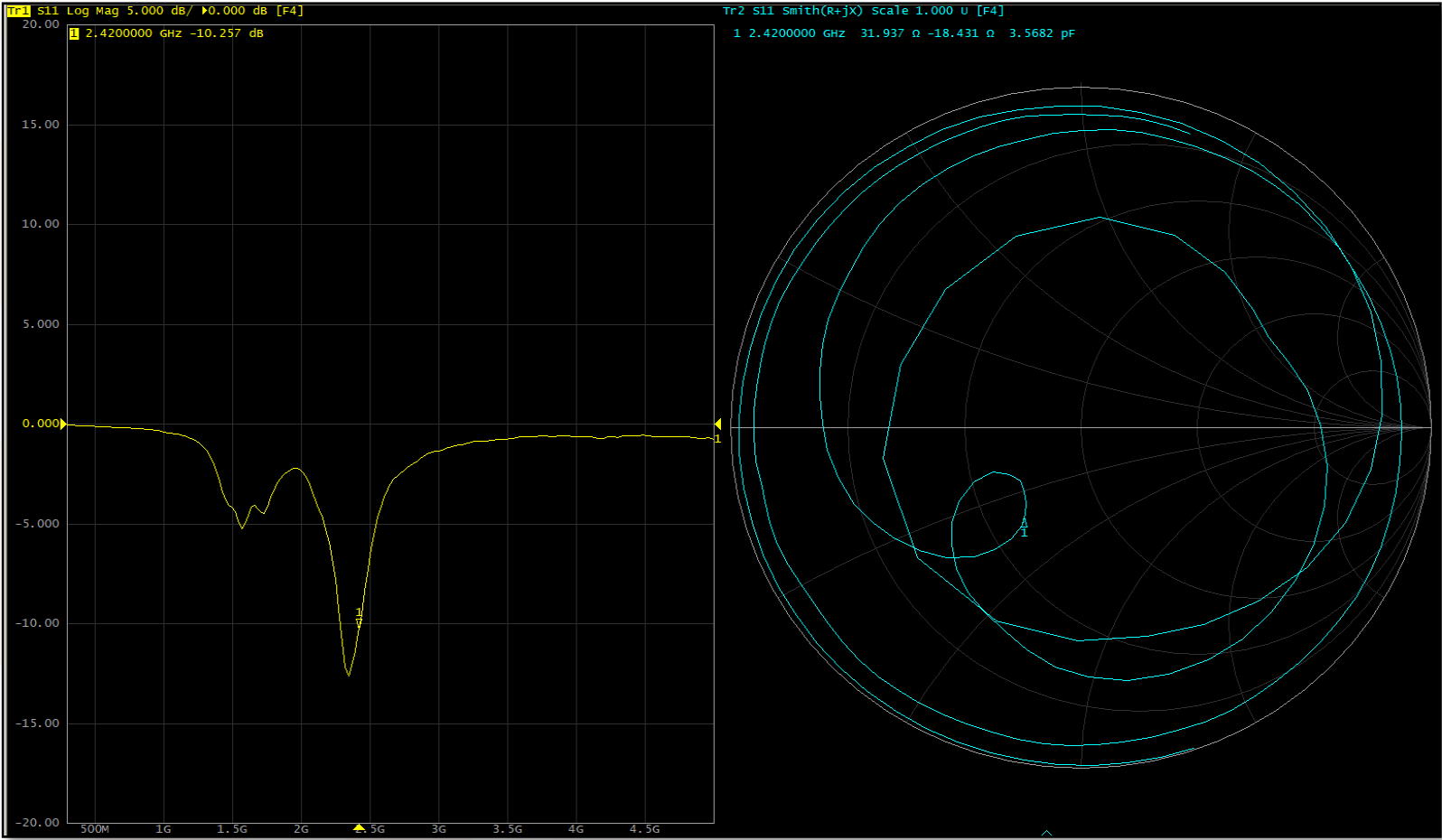




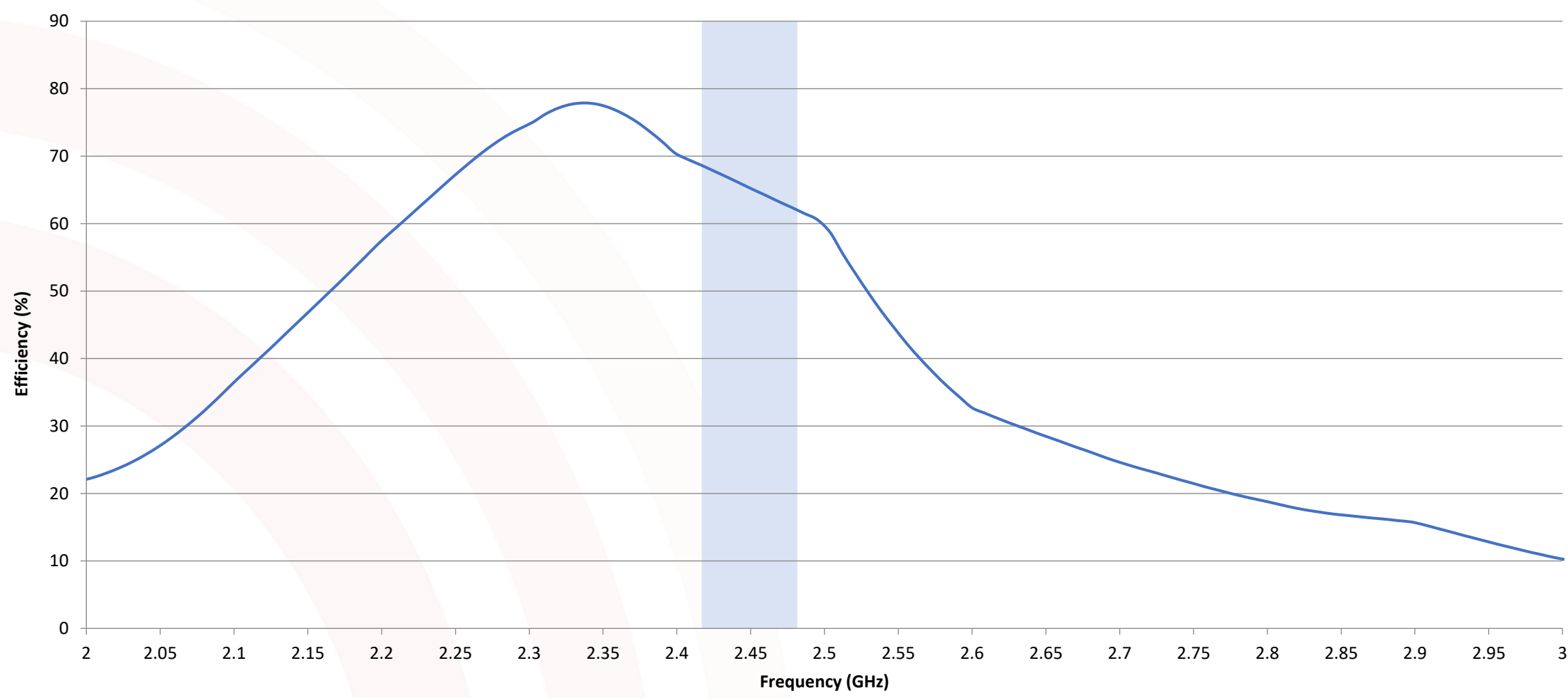
1pF Capacitor Part #: 04021J1R0PBS

Gain Performance	
Frequency	<i>2.42 GHz</i>
Maximum Gain	<i>3.63 dBi</i>

Return Loss

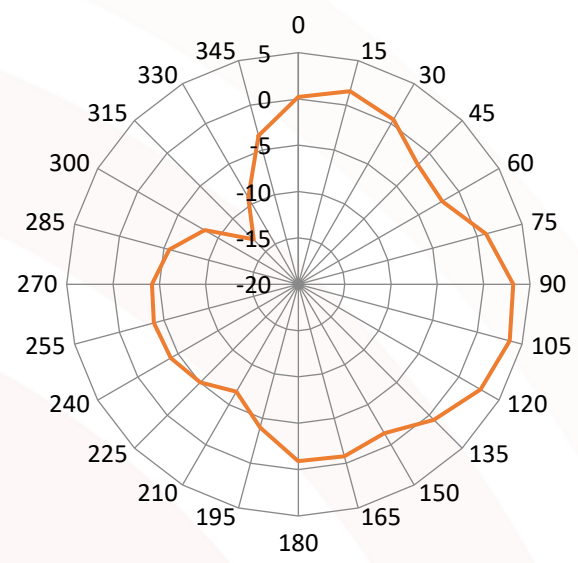


Frequency	2.42 GHz
Return Loss	-10.3 dB
Smith Chart Impedance (R + Xj Ω)	31.9 - 18.4j

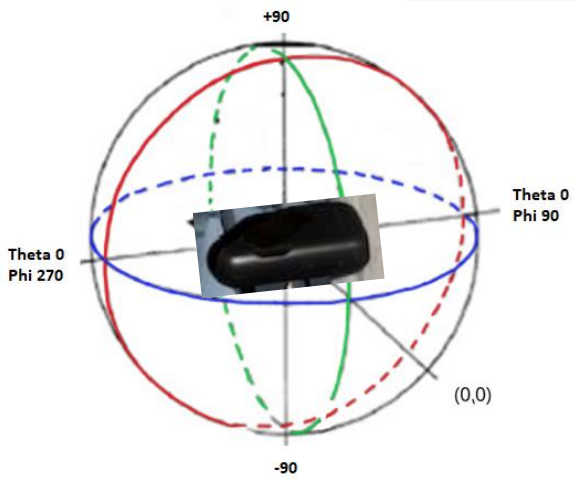
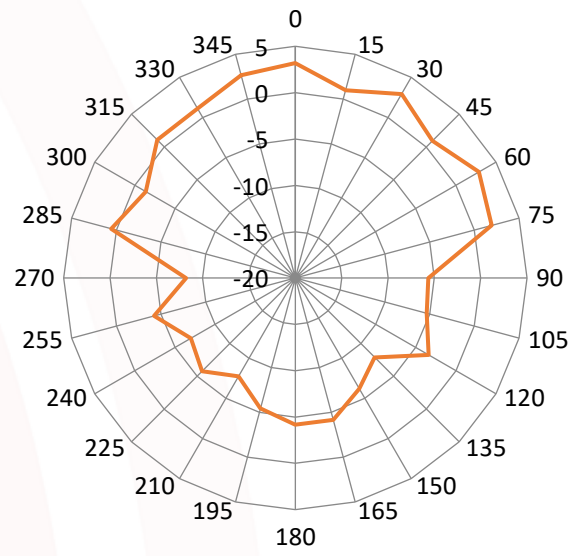
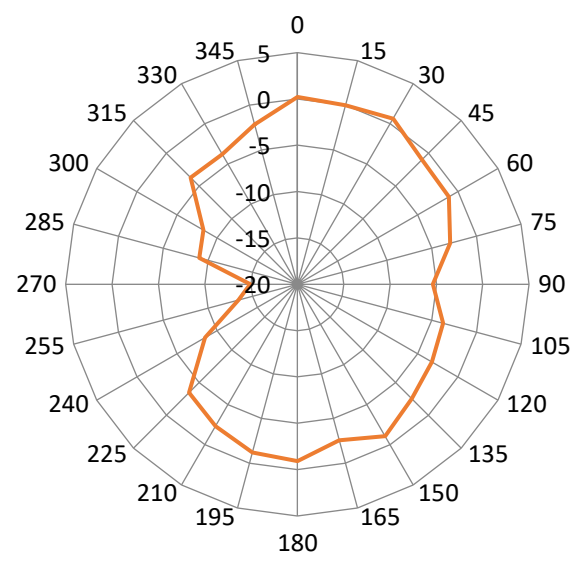


Frequency	2.42 GHz
Efficiency	68.70%

1D Radiation Patterns

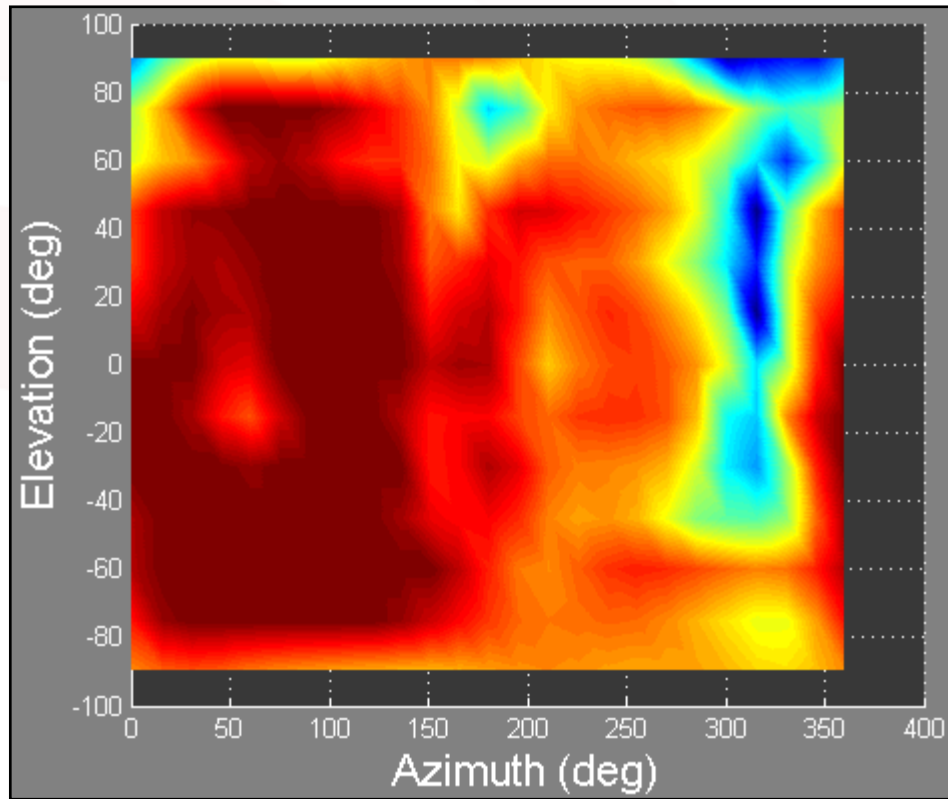


2.42 GHz

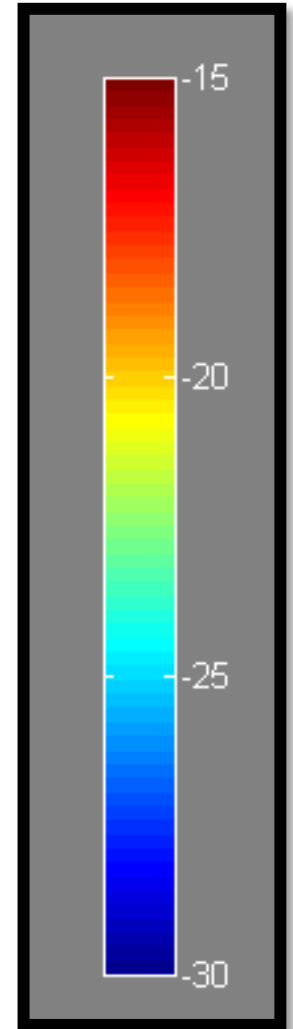
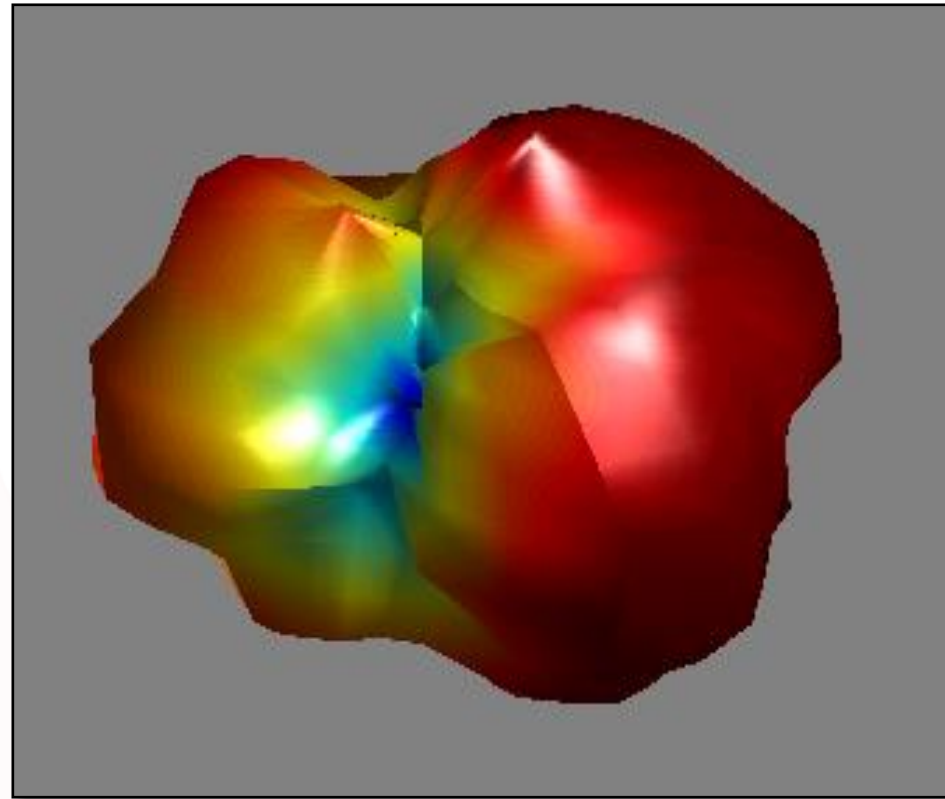


Heat Map & 3D Spherical

2.42 GHz

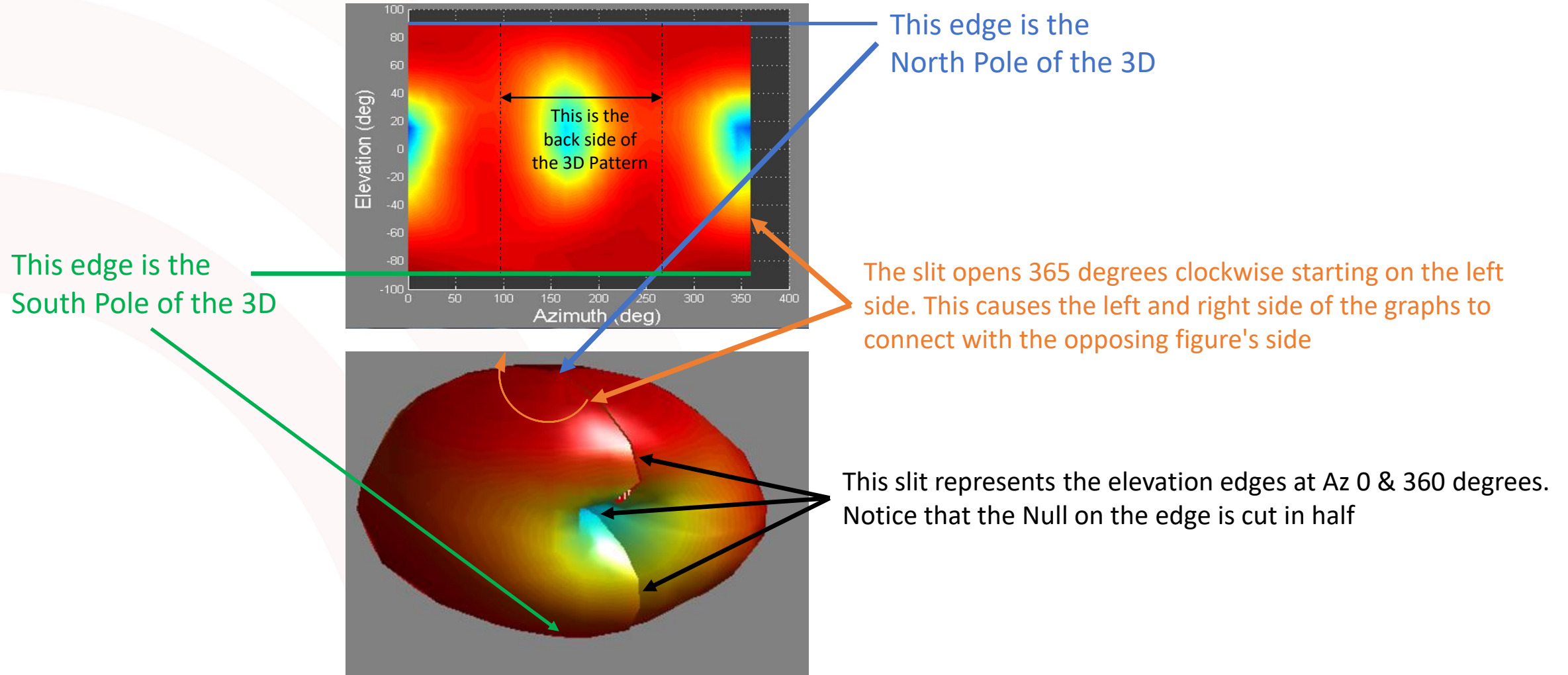


2.42 GHz



Example: How To Read & Compare the Heat Map & 3D Spherical

The advantage of a Heat Map is to show the entire 3D plot in one graph





FULLY ANECHOIC 3 METER
ANTENNA CHAMBER



FIELDTHEORY[®]
CUSTOM ANTENNA DESIGN & RF SOLUTIONS

Questions?

www.fieldtheoryinc.com