



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

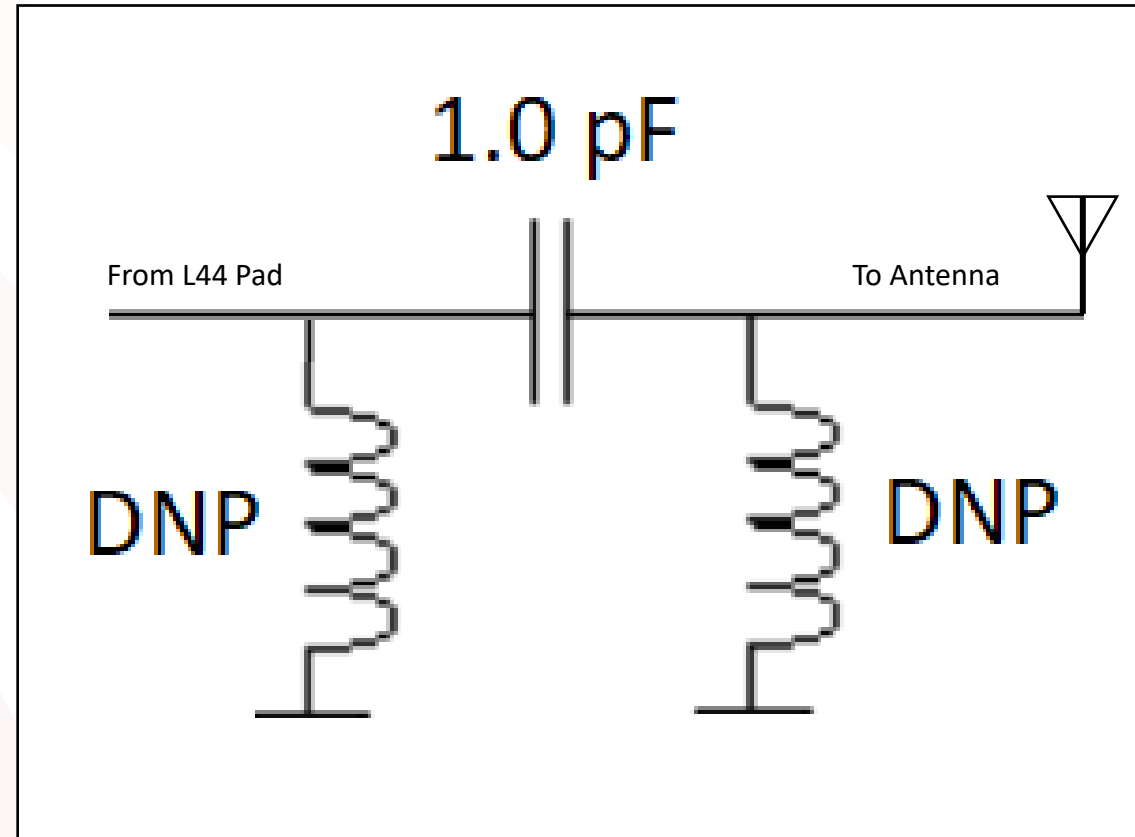
Report Contents

- 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

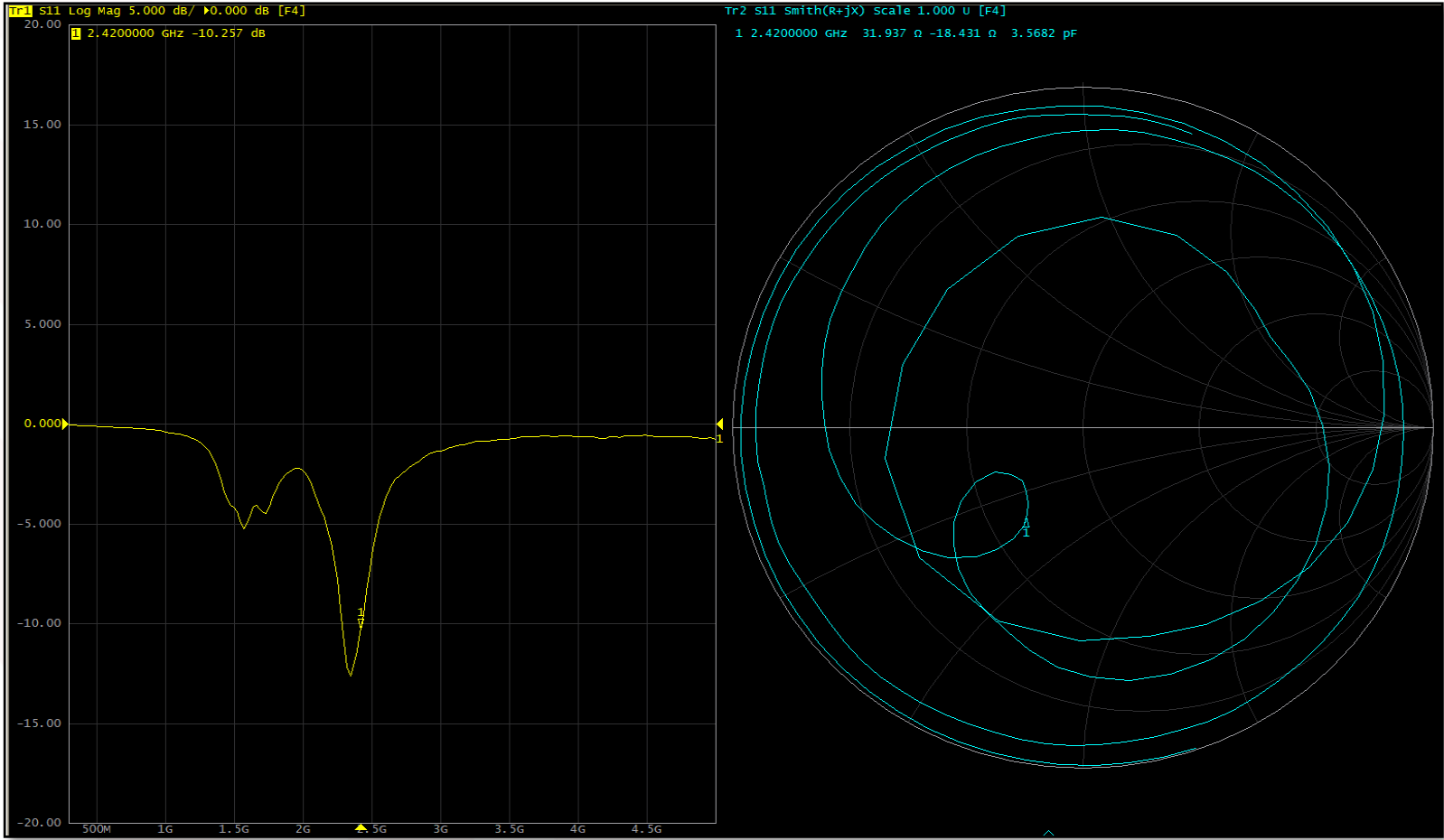




1pF Capacitor Part #: 04021J1R0PBS

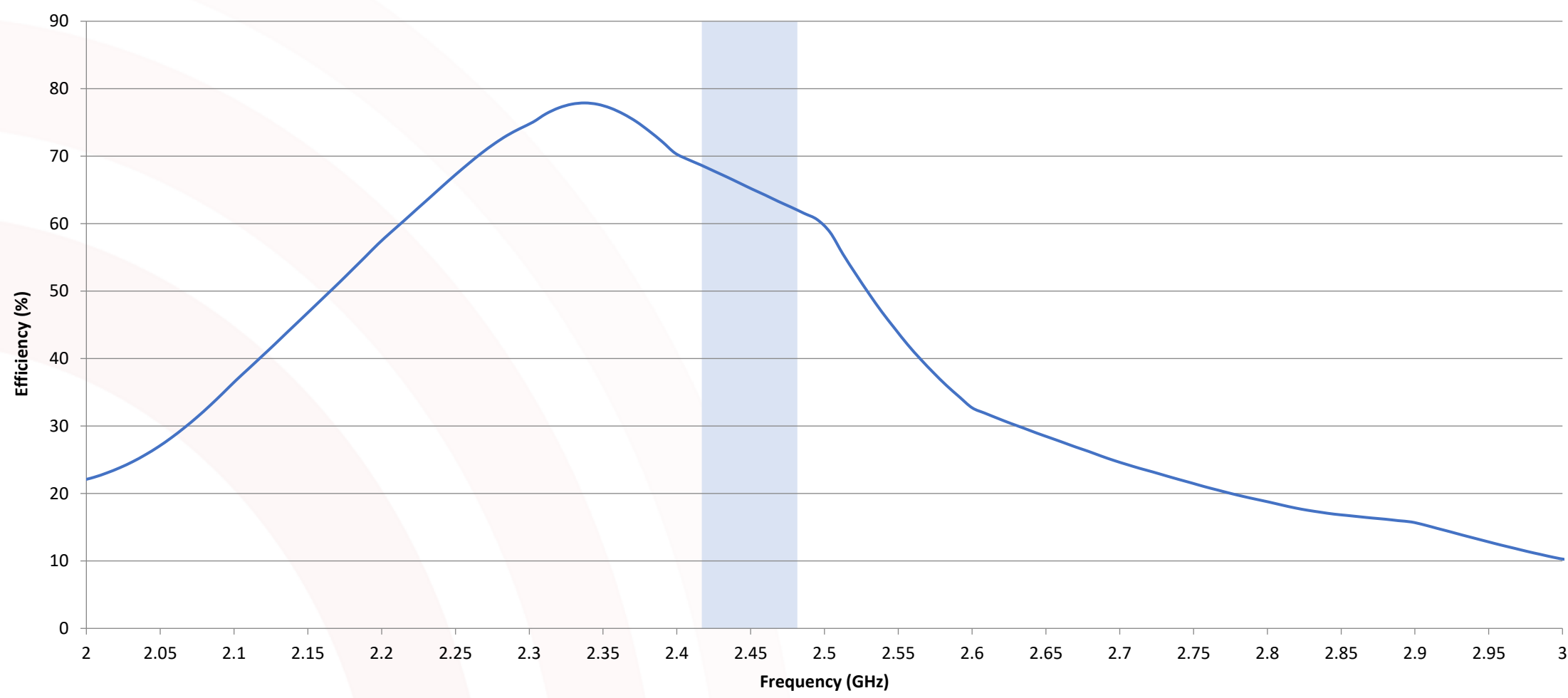
Gain Performance	
Frequency	<i>2.42 GHz</i>
Maximum Gain	<i>3.63 dBi</i>

Return Loss



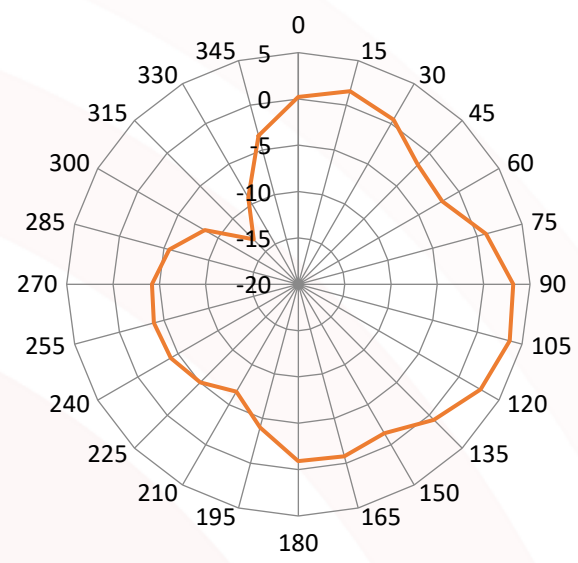
Frequency	2.42 GHz
Return Loss	-10.3 dB
Smith Chart Impedance (R + Xj Ω)	31.9 - 18.4j

Passive Efficiency

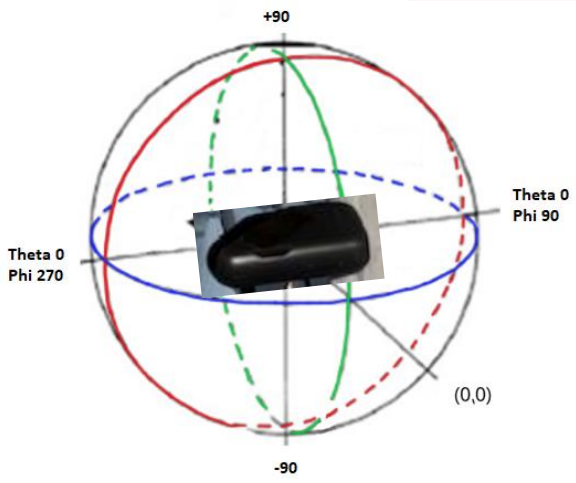


Frequency	2.42 GHz
Efficiency	68.70%

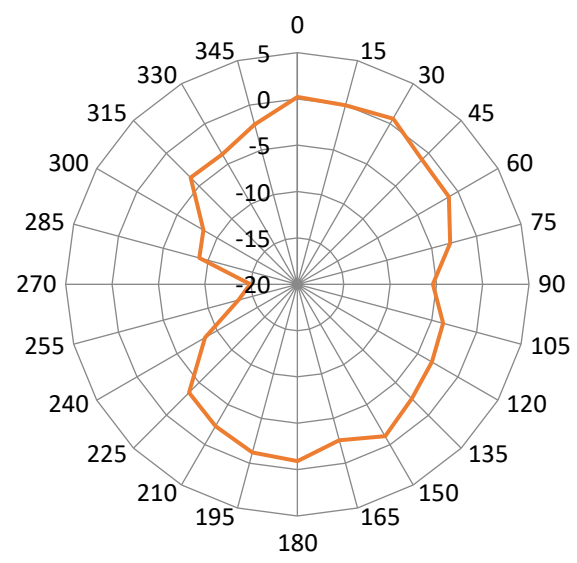
1D Radiation Patterns



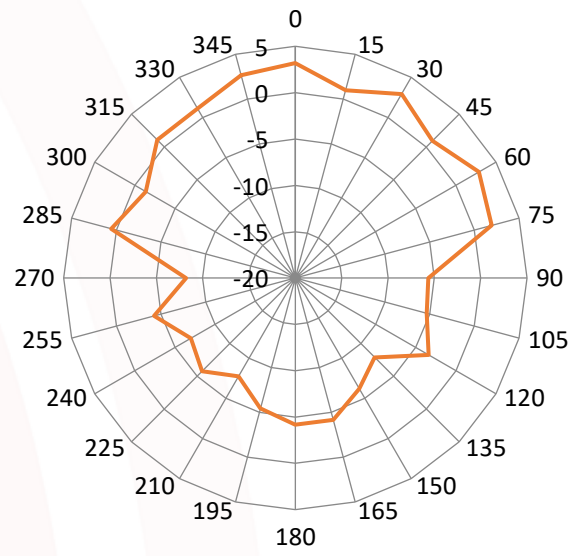
BLUE



2.42 GHz



GREEN

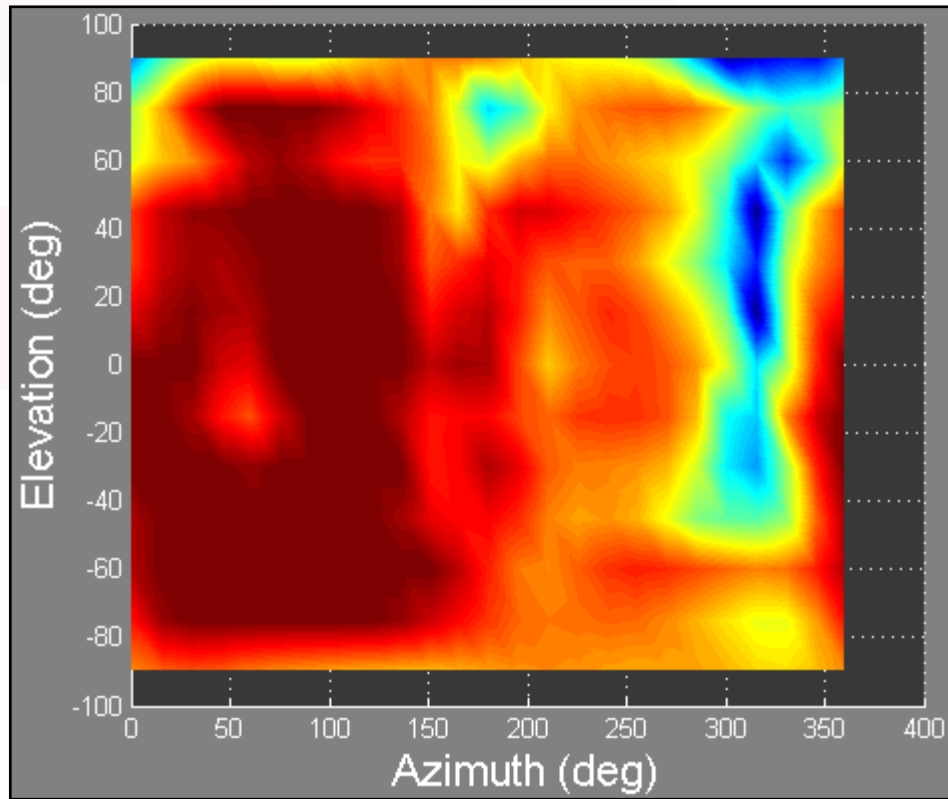


RED

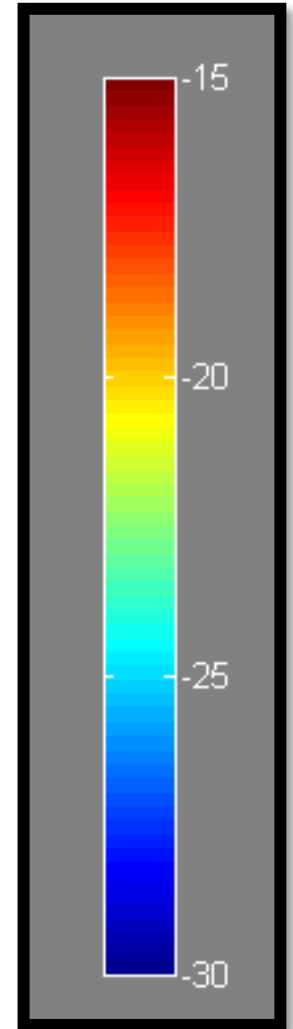
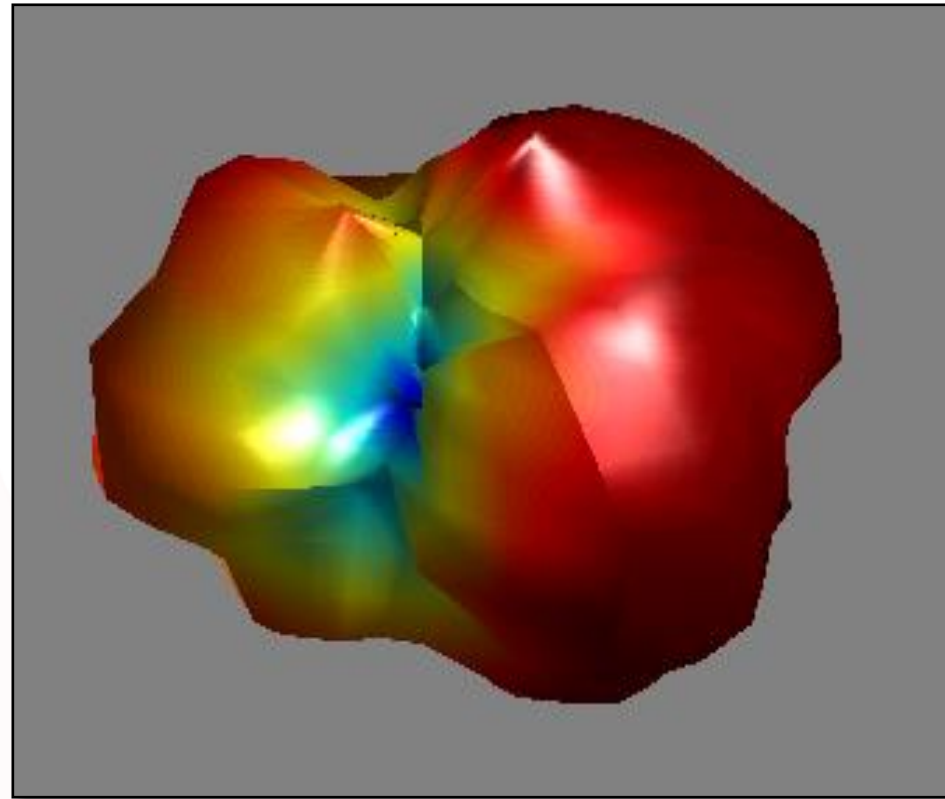
CONFIDENTIAL

Heat Map & 3D Spherical

2.42 GHz

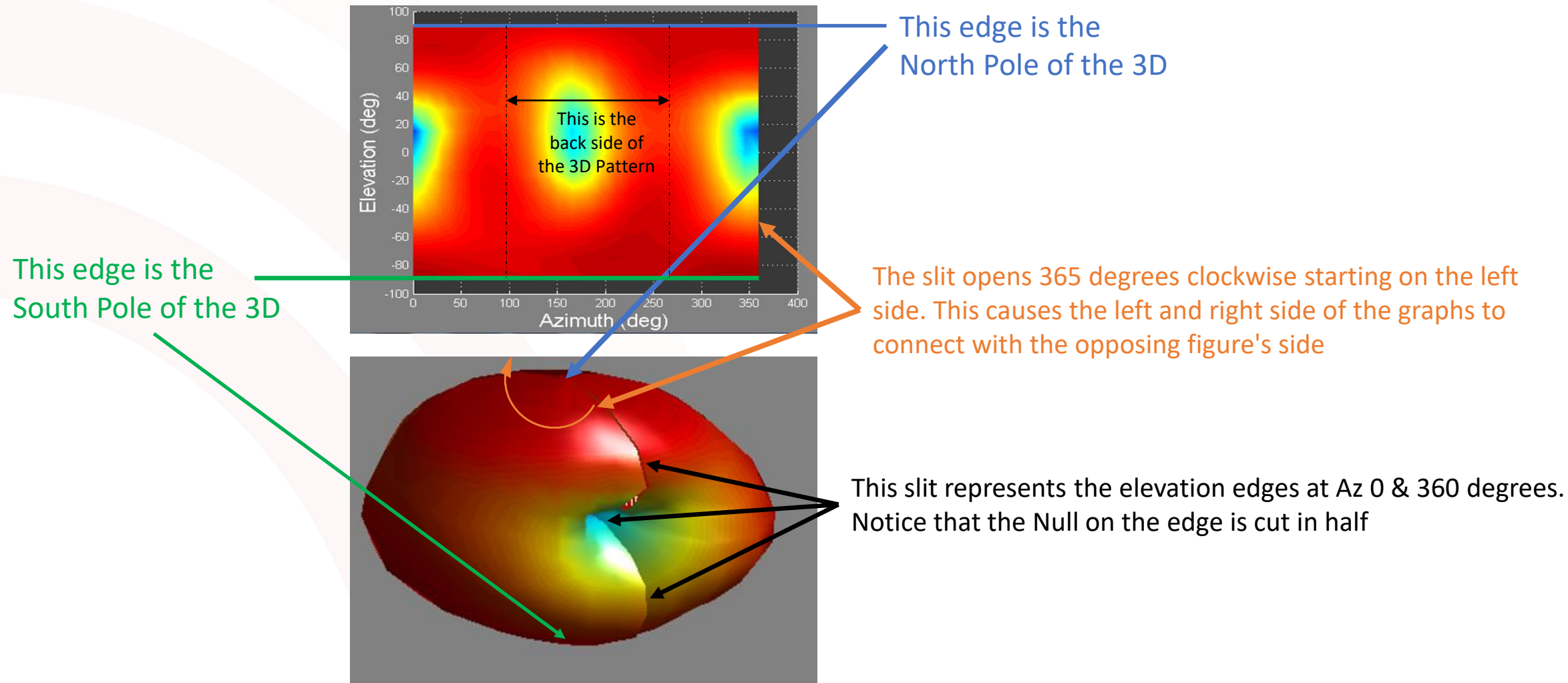


2.42 GHz



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



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Questions?

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