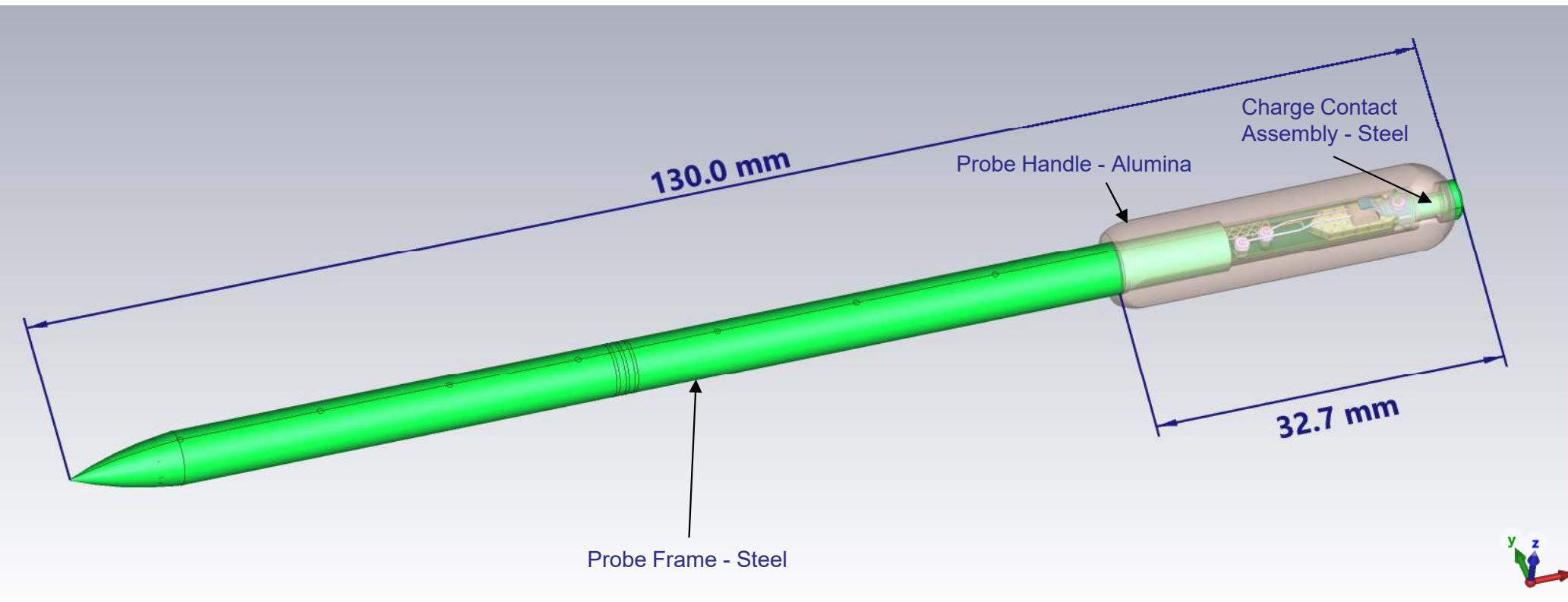


Combustion Inc. Predictive Thermometer Gen2: Antenna Specification

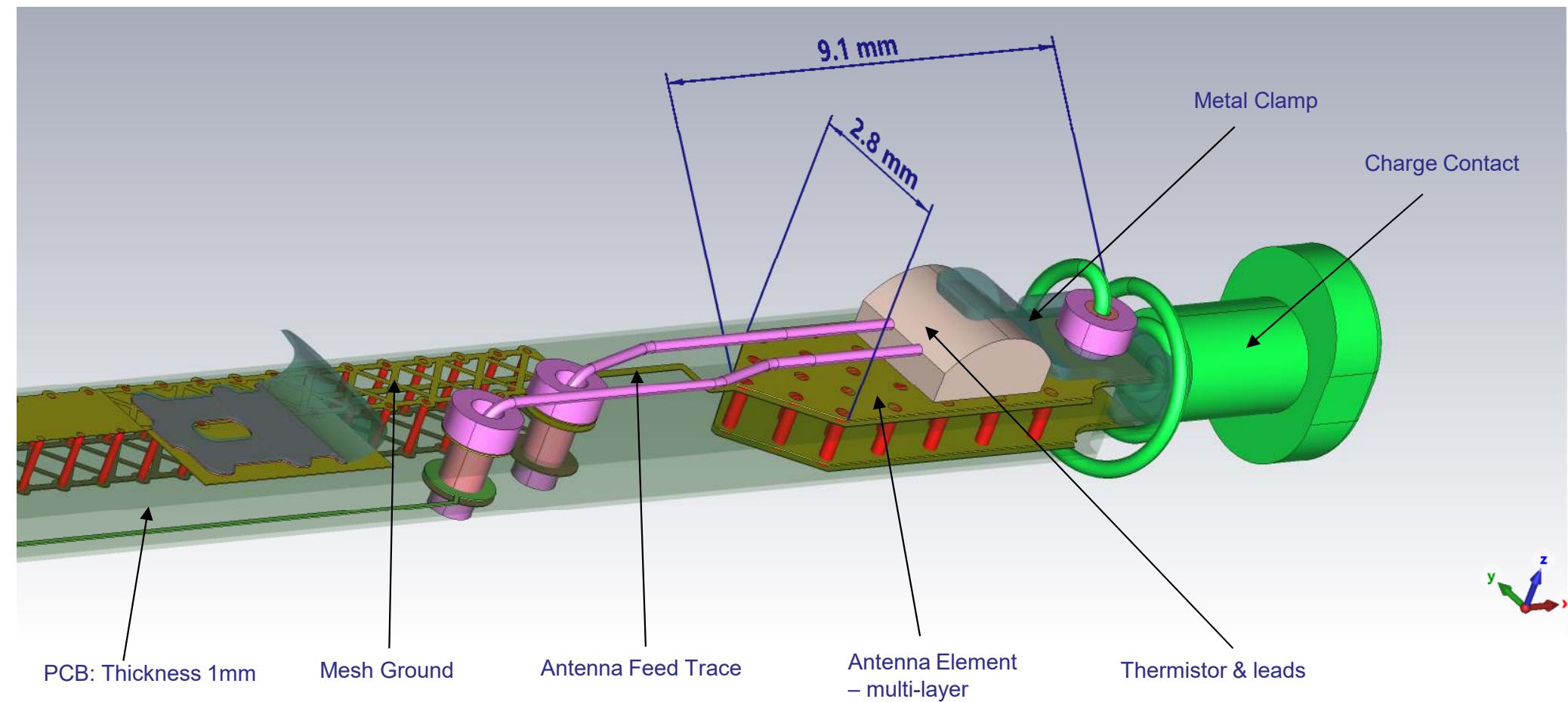
Version	Date	Description	Report
1	1-21-2025	Description of BLE Antenna Configuration; Radiated Paek Gain	JCM-EM: Joseph C. Modro

Probe External View



- Antenna PCB + Mechanical Assembly in Handle [Handle view transparent]

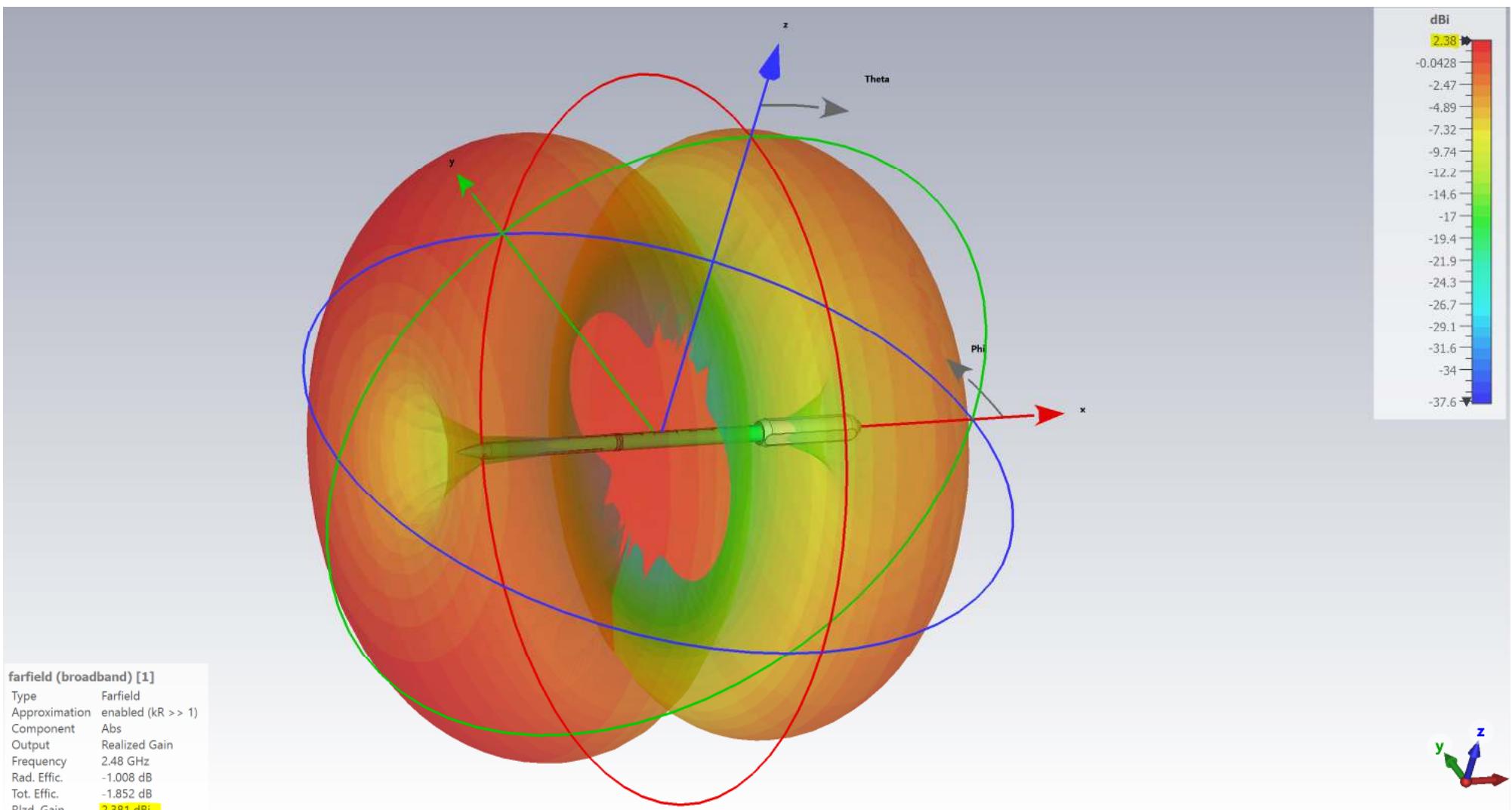
Antenna – Probe Internal View



Summary of Antenna Properties

- Antenna Type: Fully Integrated PCB and Metal Contact Antenna [No test connector]
- Peak Antenna Gain: **2.38dBi**
- Frequency Range: 2.402GHz – 2.48GHz [BLE band]

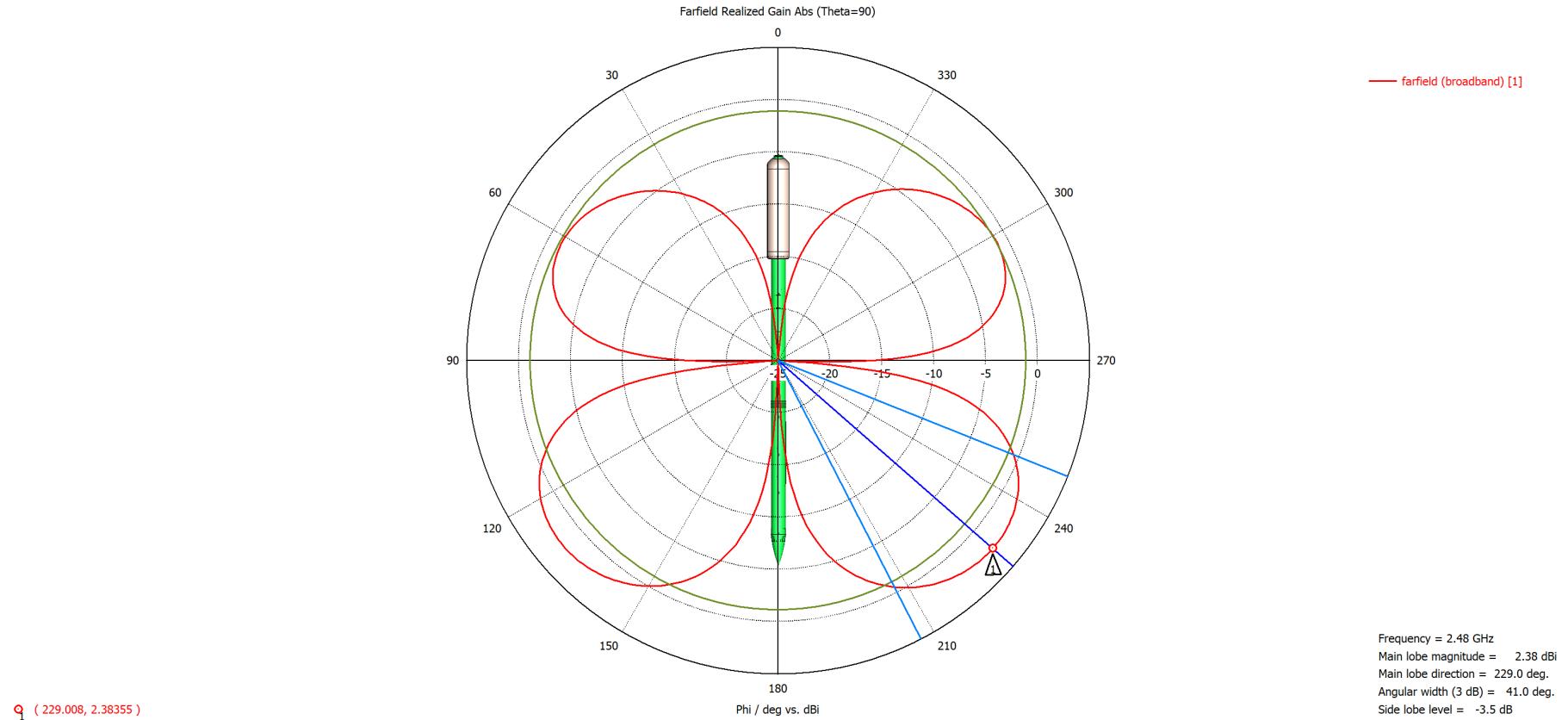
BLE Antenna Free-Space Radiation Pattern 3D: Peak Gain is at 2.48GHz



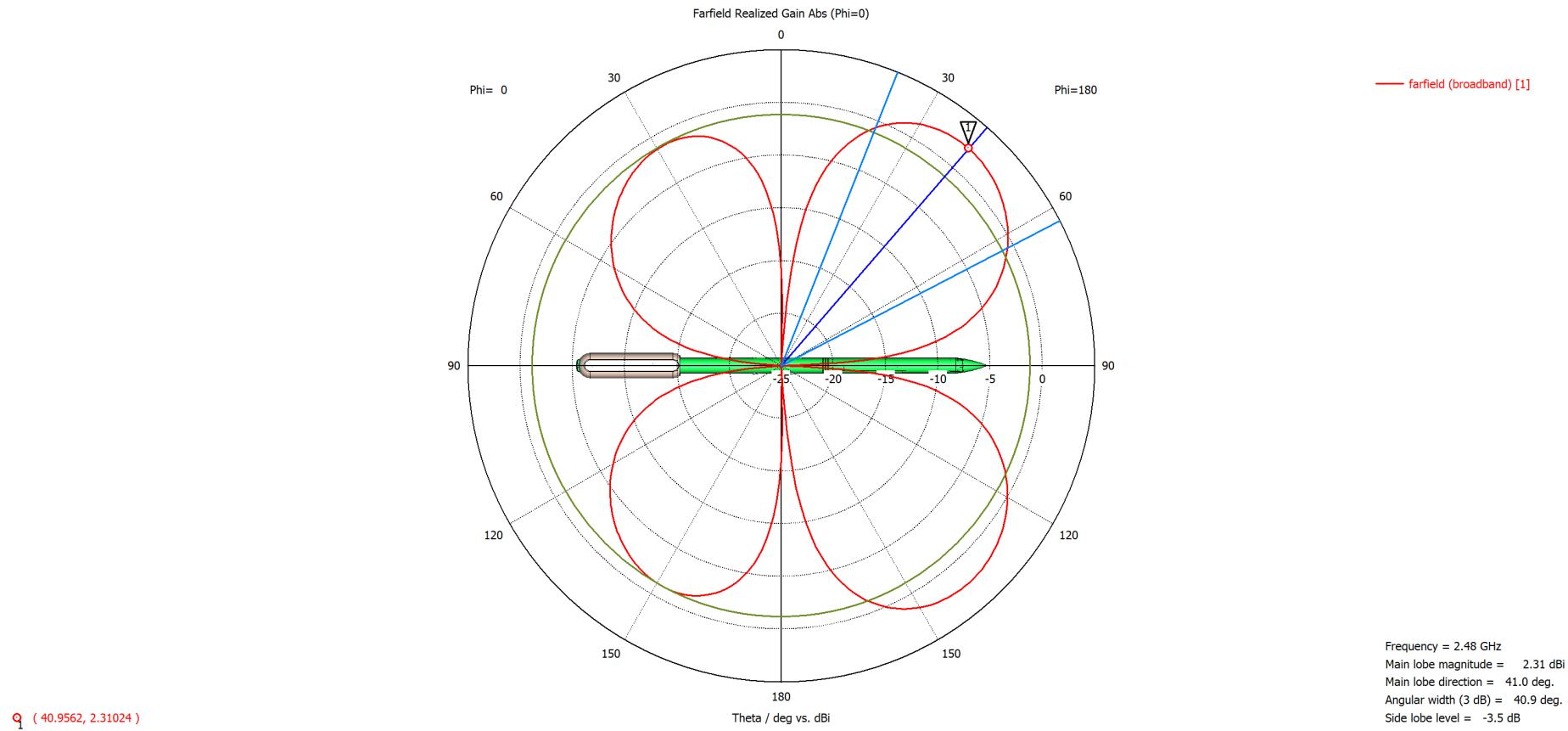
Peak gains [realized gain]:

- 2.402GHz: 2.10dBi
- 2.44GHz: 2.21dBi
- 2.48GHz: 2.38dBi

BLE Antenna Free-Space Radiation Pattern 1D-Polar: Horizontal [Azimuth] Cut: [Gain vs. Phi @ Theta=90 deg.; @ 2.48GHz]



BLE Antenna Free-Space Radiation Pattern 1D-Polar: Vertical [Elevation] Cut: [Gain vs Theta @ Phi=0 deg.; @ 2.48GHz]



Total Antenna Efficiency vs. Frequency

