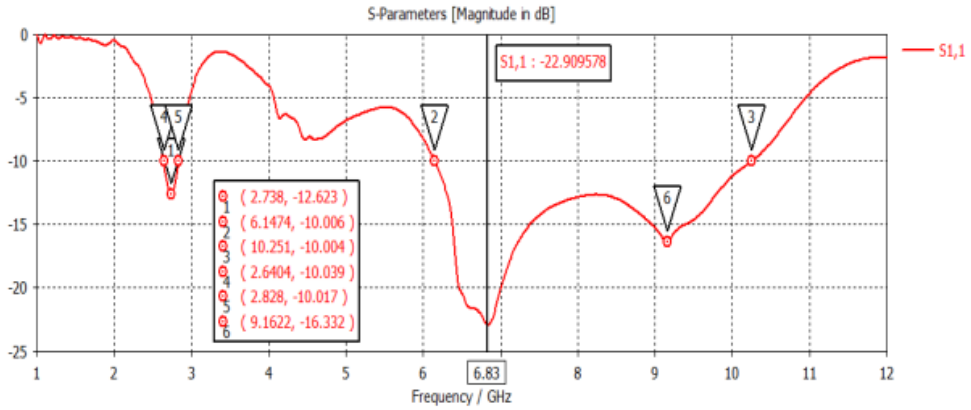
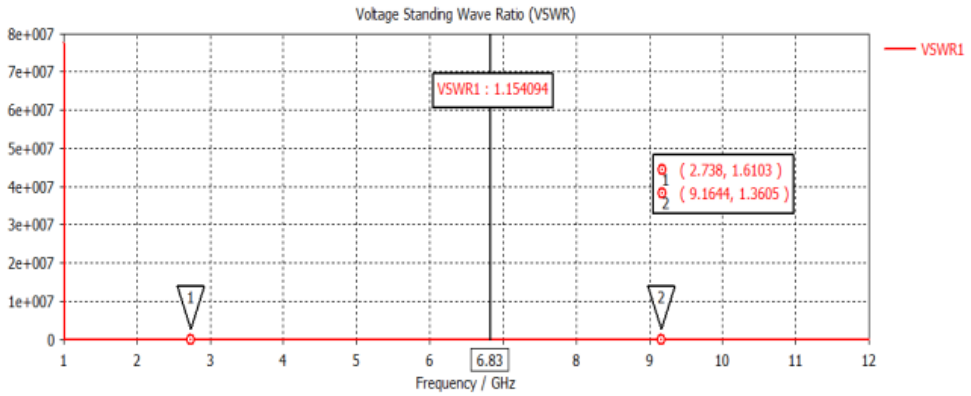
A. Lossy

1. The Fig, shows the s-parameter graph in which we can observe dual band pattern.



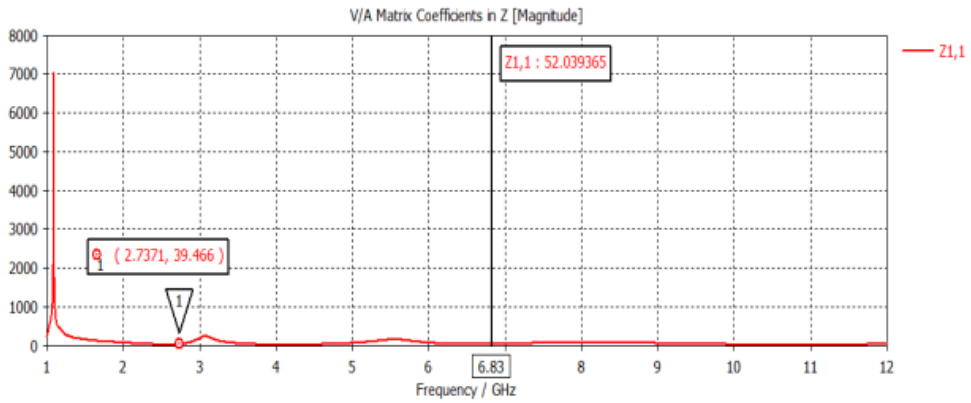
S-parameter results.

2. The Fig, depicts the Voltage Standing Wave Ratio (VSWR) at the three resonance frequencies.



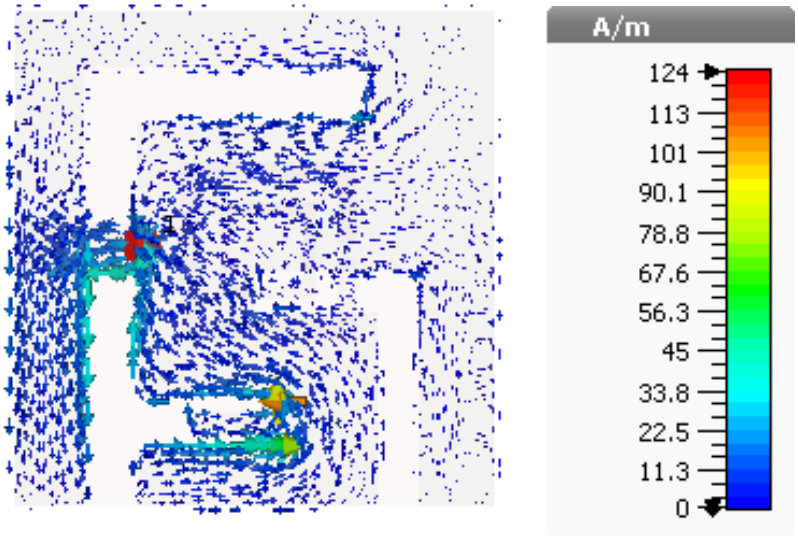
SWR results at various resonance frequency

3. The Fig, depicts, impedance at 6.83 GHz frequency is 52 Ω which is approximately equal to the ideal 50 Ω impedance.



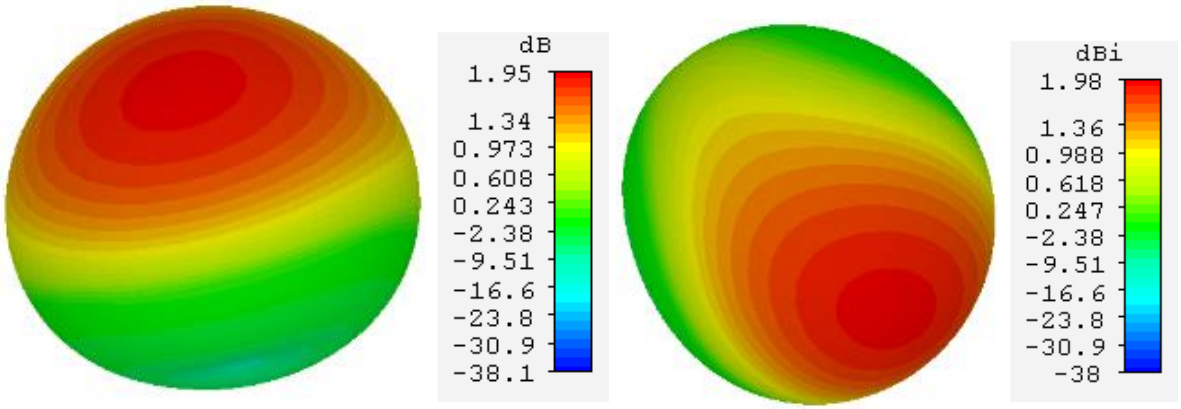
Impedance values at resonance frequencies

4. Surface current simulation result at 2.736 GHz is shown in the Fig



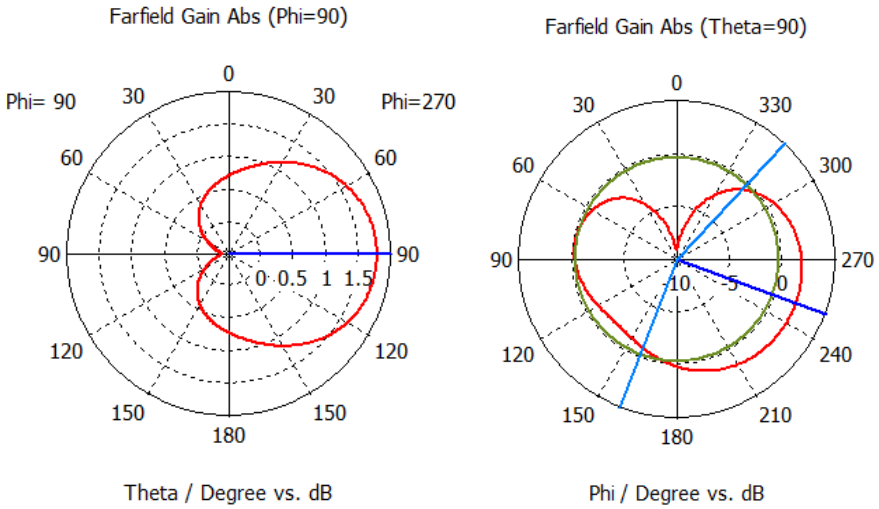
Surface current at 2.736 GHz.

5. A 3D view of simulated gain at 2.736 GHz is portrayed in the Fig.6.



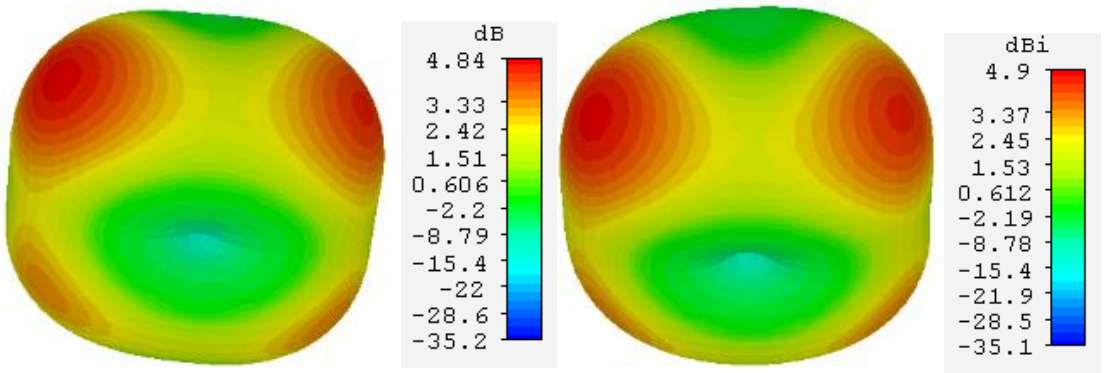
Simulated Gain & Directivity at 2.736 GHz.

6. Gain and directivity is quite less at this resonance frequency because of the radiation pattern as shown in Fig



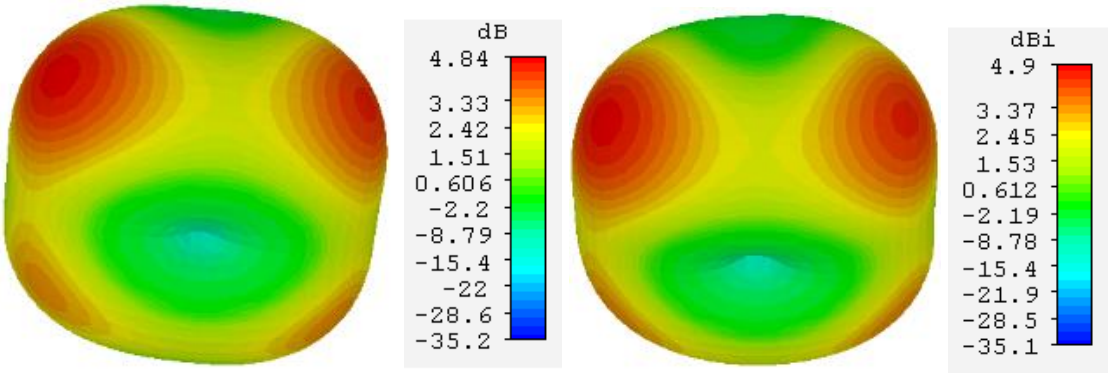
Radiation pattern at constant phi and theta.

7. Gain and directivity measurements at 6.83 GHz resonance frequency



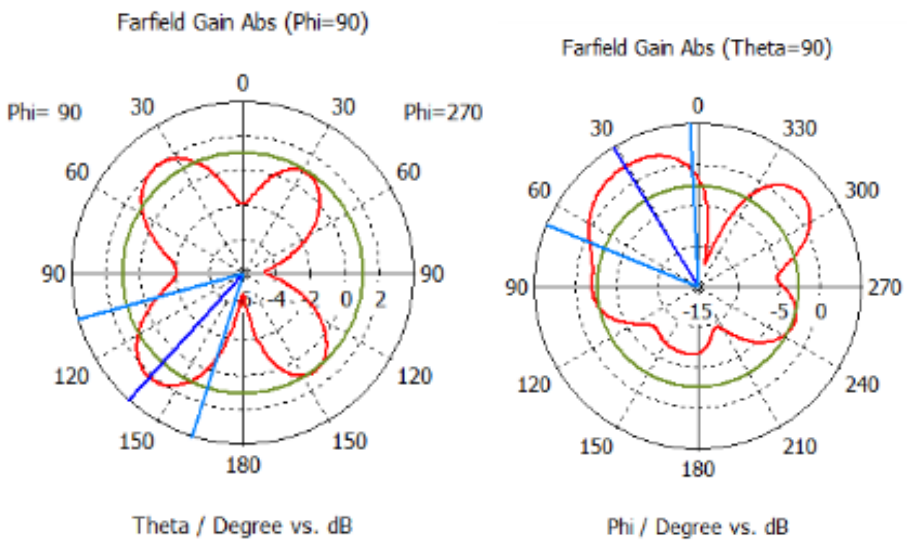
Gain & Directivity at 6.83 GHz.

8. Radiation pattern is also responsible for the drastic change in gain and directivity measurement which is depicted in Fig



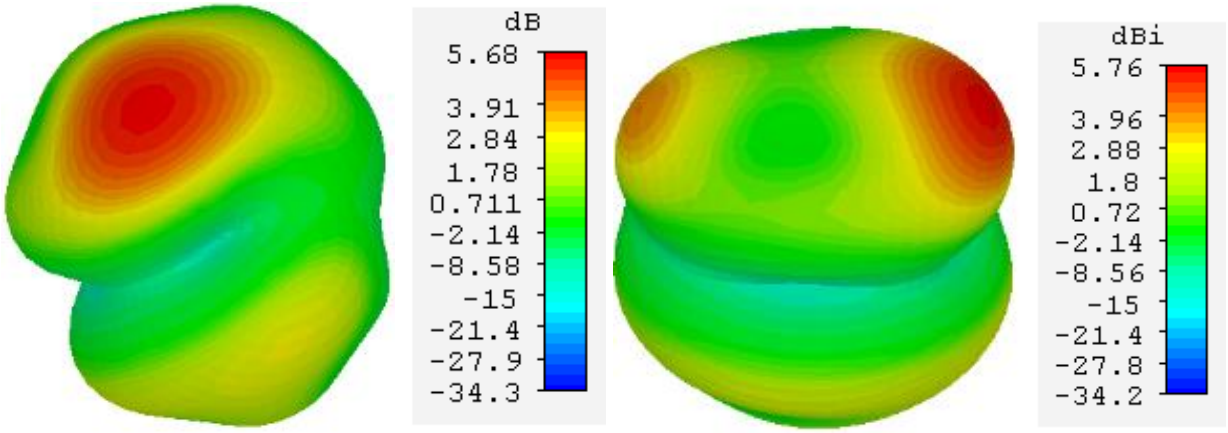
Gain & Directivity at 6.83 GHz.

9. Radiation pattern is also responsible for the drastic change in gain and directivity measurement which is depicted in Fig



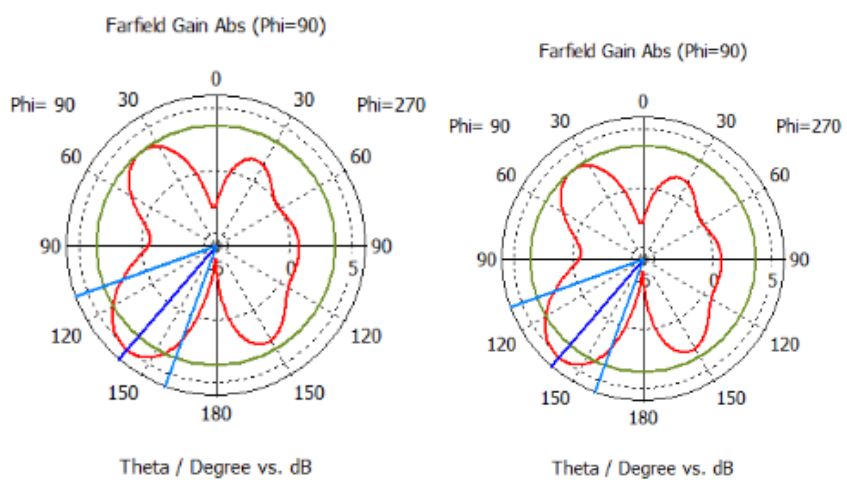
Radiation pattern at constant phi and theta

10. Another resonance frequency of 9.16 GHz has attained gain of 5.68 dB and directivity of 5.76 dBi, depicted in the Fig



Gain and Directivity at 9.16 GHz.

11. The radiation pattern is shown in the Fig, which includes both constant phi and constant theta results.



Radiation pattern at constant phi & theta.