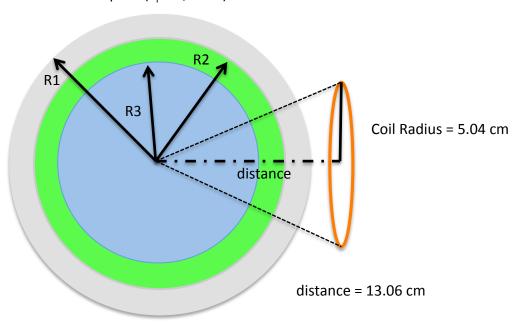
free space ($\epsilon_r = 1$, $\sigma = 0$)



R1 = 12 cm

Gray region: ε_r = 40, σ = 0.35

R2 = 10 cm

Green region: $\varepsilon_r = 20$, $\sigma = 0.25$

R3 = 8 cm

Blue region: ε_r = 60, σ = 0.45

 $f_0 = 128 \text{ MHz}$