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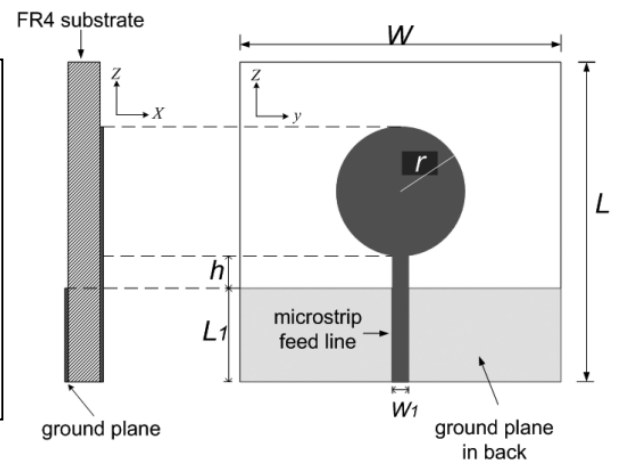
Report4: Circular Disc Monopole Antenna for UWB Systems



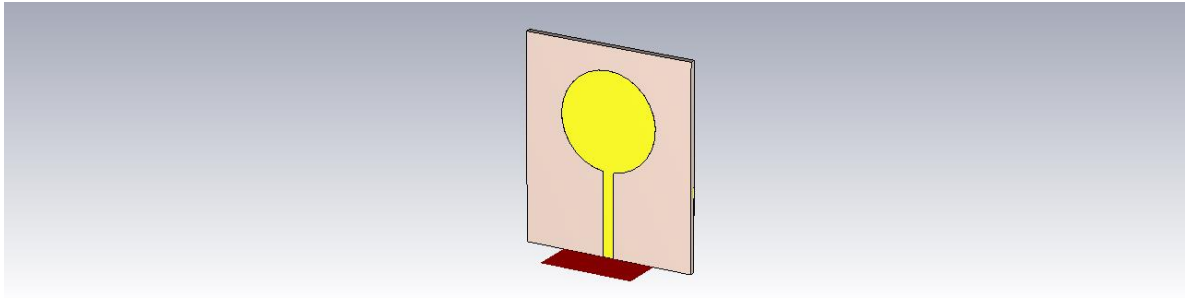
Given Dimensions

The prototype of the proposed circular disc monopole antenna with optimal design: $r=10\text{mm}$, $h=0.3$, $W=42\text{mm}$, $L=50\text{mm}$ and $L_1=20\text{mm}$ and as shown in the Figure.

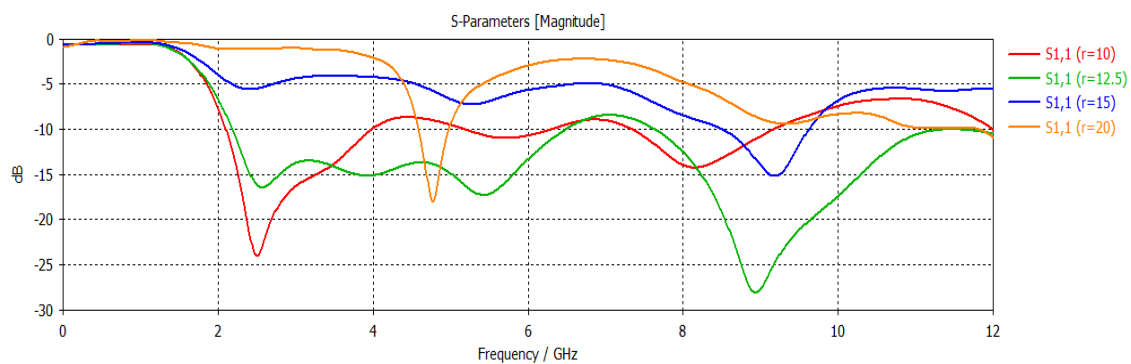
The FR4 substrate of thickness 1.5 mm and relative permittivity 4.7 was used.



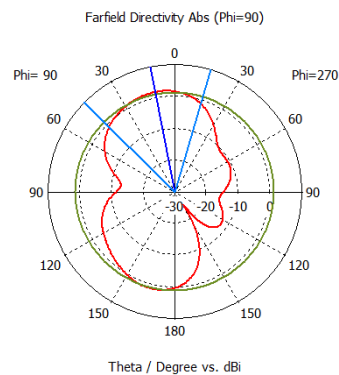
1) Structure



2) S-Parameter



3) Farfield (1D/3D)



— farfield (f=6) [1]

Frequency = 6 GHz
Main lobe magnitude = -1.92 dBi
Main lobe direction = 11.0 deg.
Angular width (3 dB) = 61.7 deg.
Side lobe level = -0.6 dB

