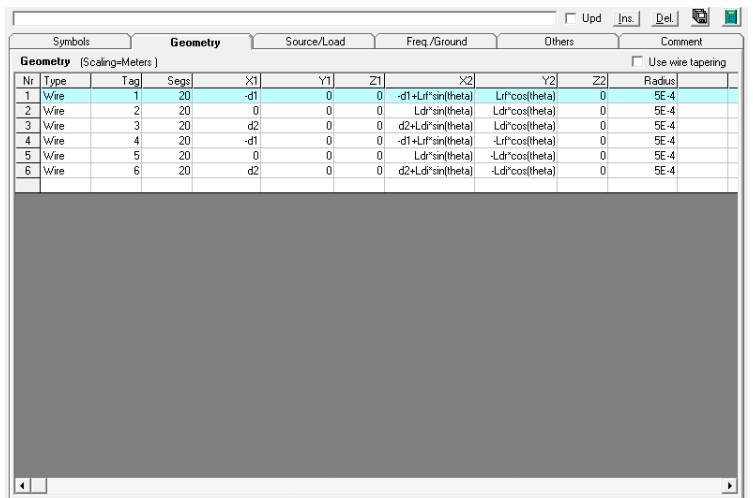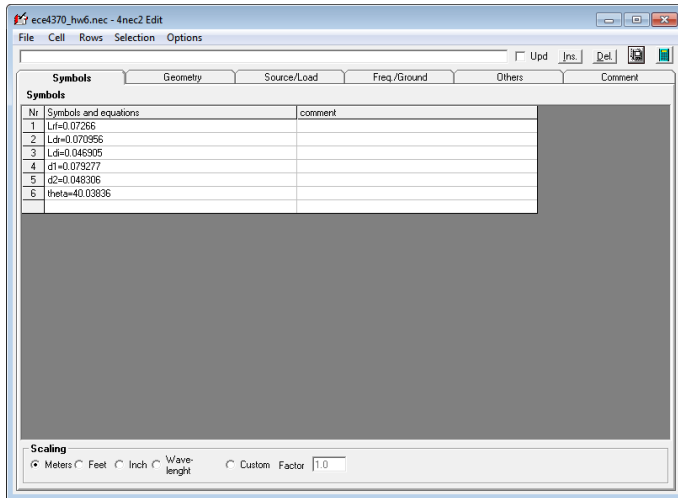# ECE 4370 – Homework 6
Caitlyn Caggia
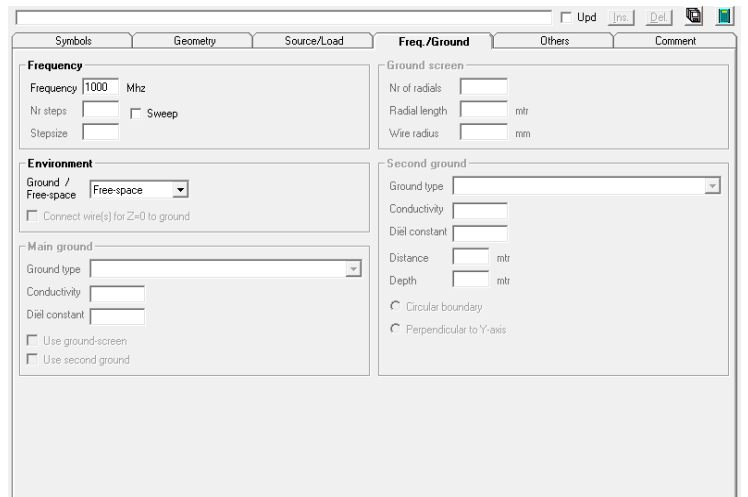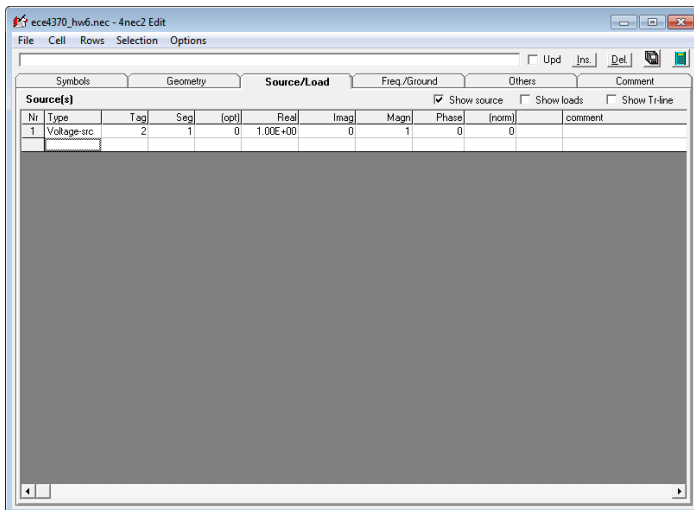
Final Dimensions

Dimension	Value (m)
Lrf	0.07266
Ldr	0.070956
Ldi	0.046905
d1	0.079277
d2	0.048306
alpha	40.03836

Input File

Gain Patterns

Tot-gain [dBi]

1000 MHz

Vertical plane

-15   0   Z   15
-30   30
-45   45
-60   60
-75   75
-90   90   XY
-105   105
-120   120
-135   135
-150   150
-165   165
-180

10
7
4
0
-5
-10
-20
-30
-40

ece4370_hw6.out
Phi= 0

-6.9 < dBi < 5.8
Max gain The:90

Tot-gain [dBi]

1000 MHz

Horizontal plane

105   90   Y   75
120   60
135   45
150   30
165   15
180   0   X
195   345
210   330
225   315
240   300
255   270   285

10
7
4
0
-5
-10
-20
-30
-40

ece4370_hw6.out
Theta= 35

-8 < dBi < 3.84
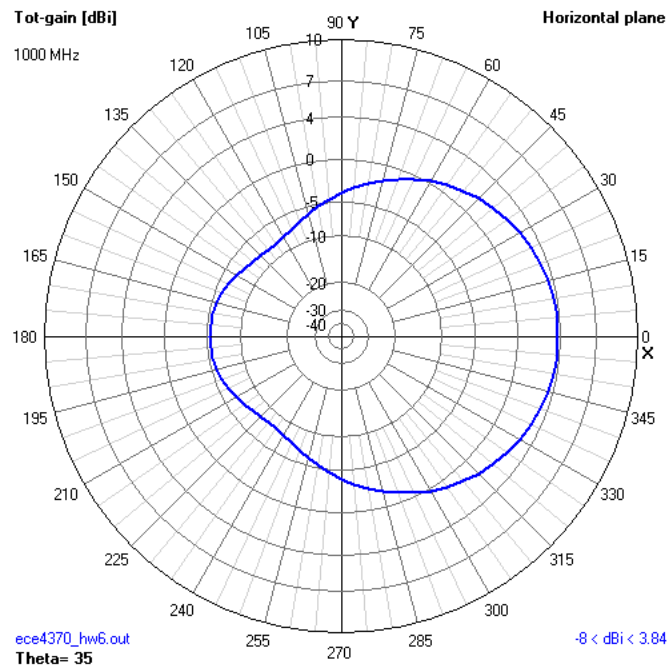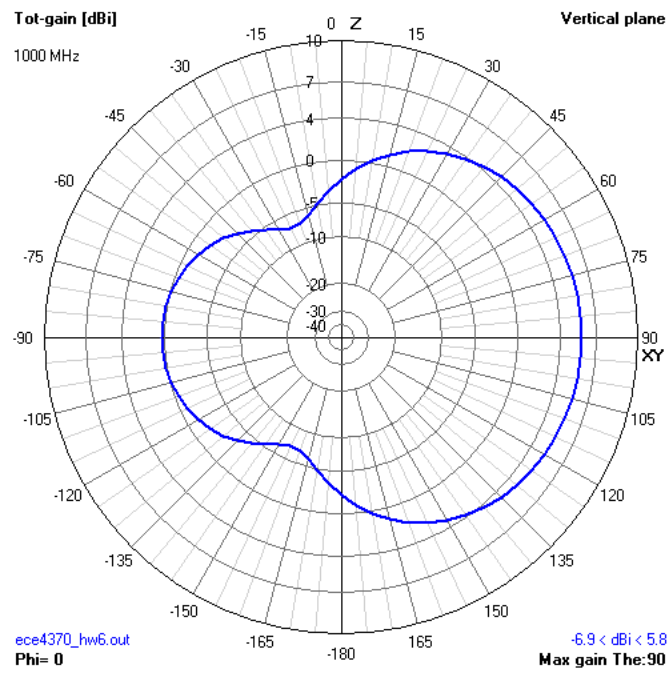
Bandwidth

Bandwidth: 16 MHz

Refl coef [dB] (50 ohm)

1008 MHz

-22.587

Refl coef [dB] (50 ohm)

1000 MHz

-19.667

Refl coef [dB] (50 ohm)

1016 MHz

-19.307
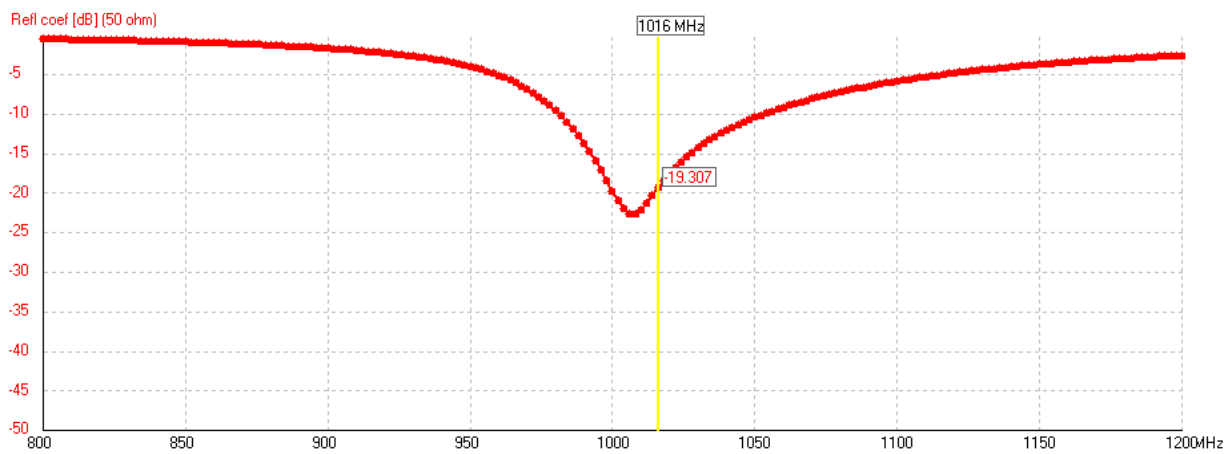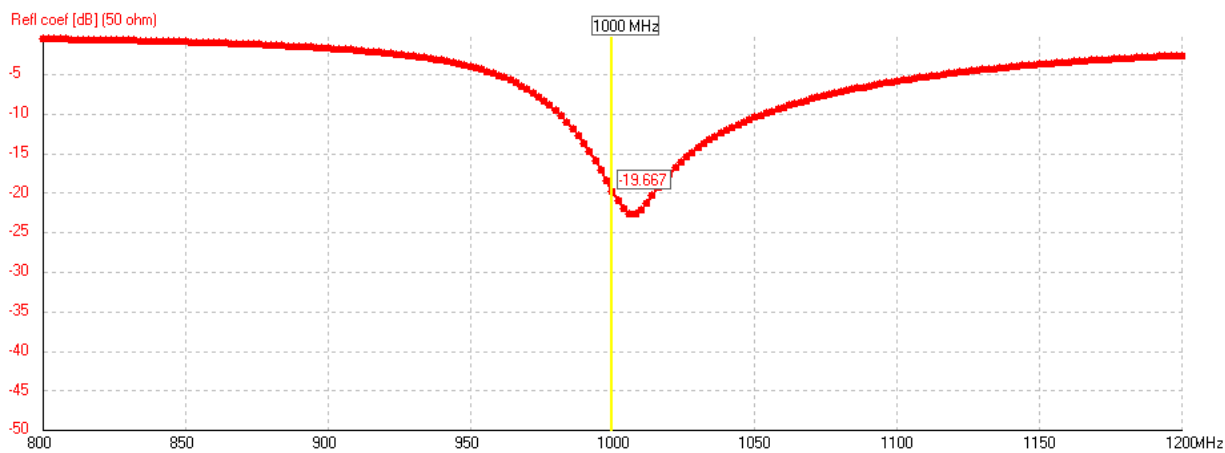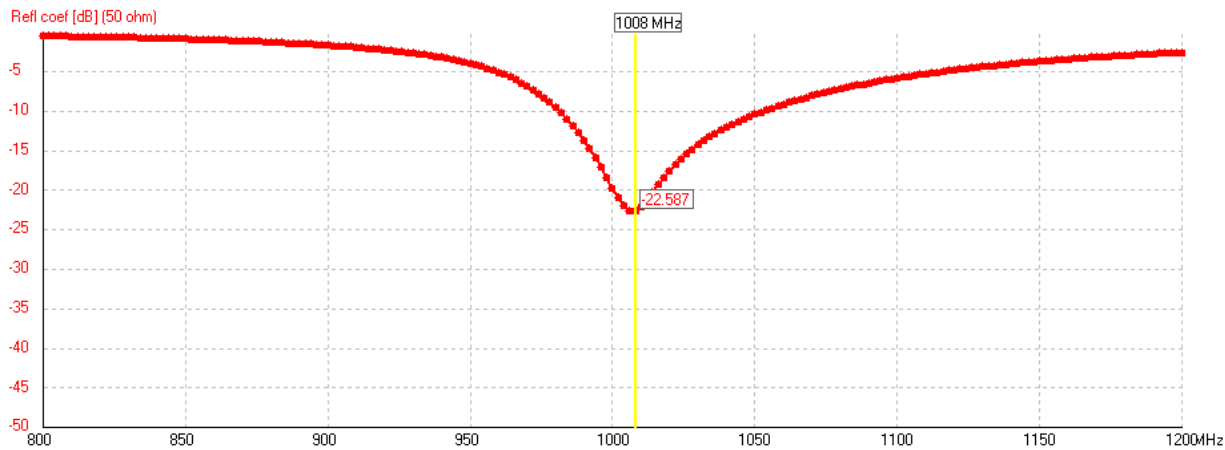
Front to Back Ratio

Front to back ratio: 5.61 dB

Tot-gain [dBi]

1000 MHz

Vertical plane

90 dg
5.8 dB90
bw: 130 dg
fb: 5.61 dB

25 dg

155 dg

ece4370_hw6.out
Phi= 0

-6.9 < dBi < 5.8
Max gain The:90