電磁波與天線導論 HW11

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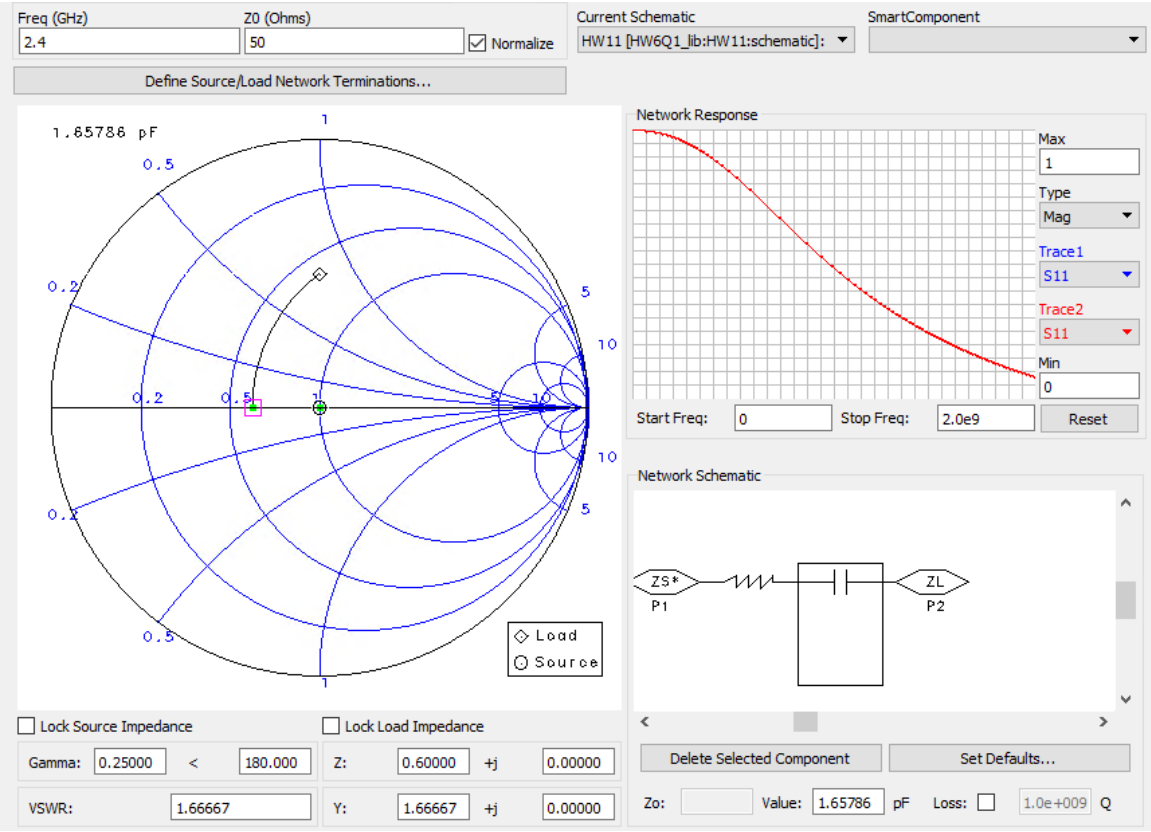
1

$$50-(30+j40)=20-j40$$

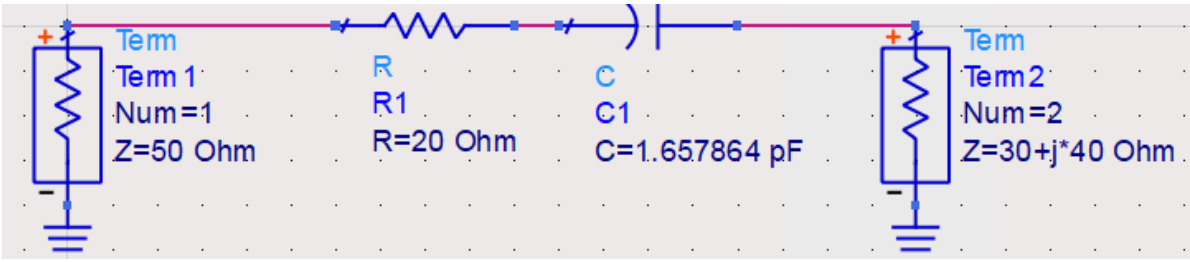
$$impedance\ \ matching\ \ series\ \ R\ \ and\ \ C.$$

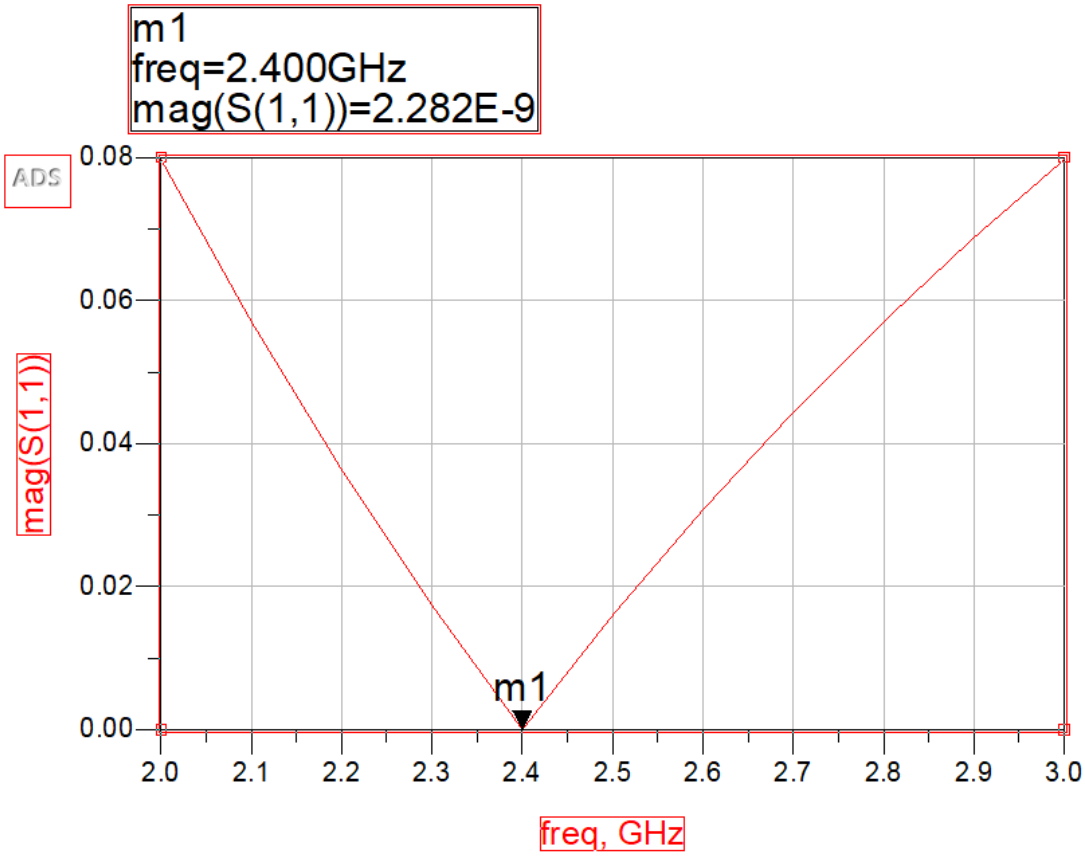
$$R=20,\ \ \frac{1}{jwC}=-j40\Rightarrow C=1.657864(pF)-<ans>$$

$$Simulate\ \ in\ \ Smith\ \ Chart:$$



$$Model\ \ in\ \ ADS:$$

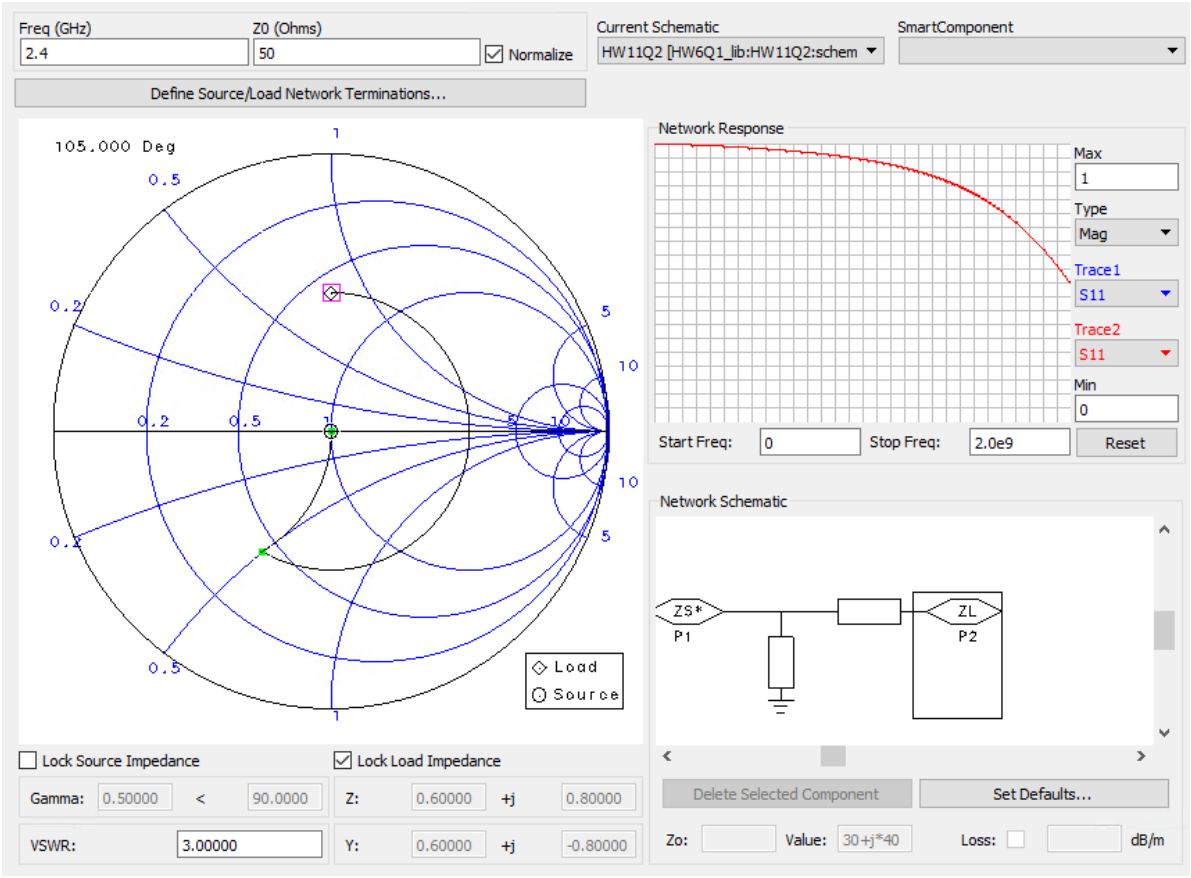




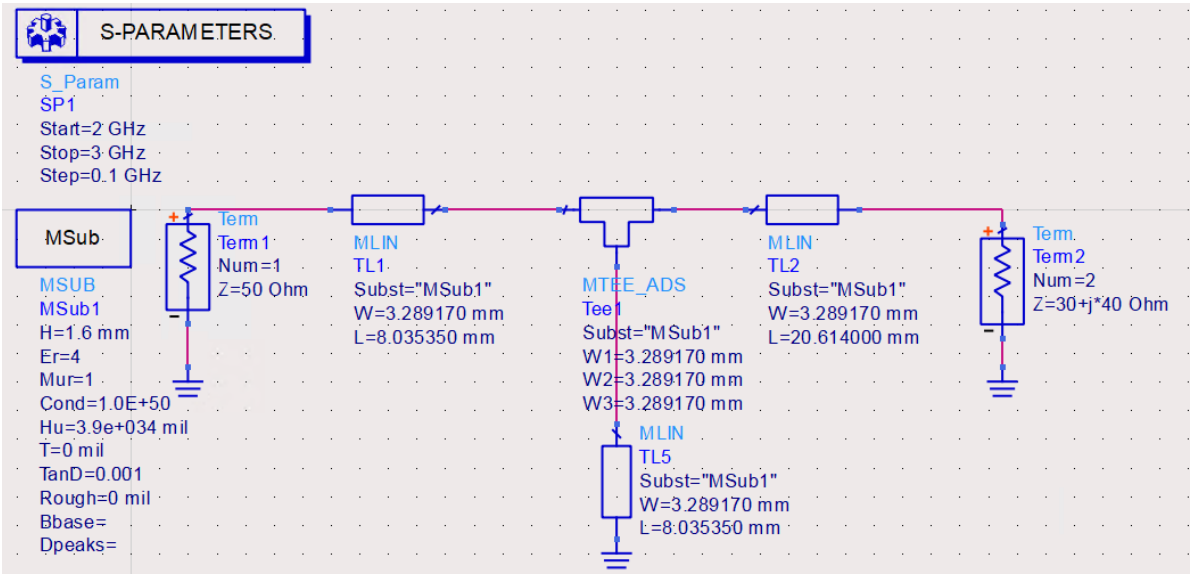
2

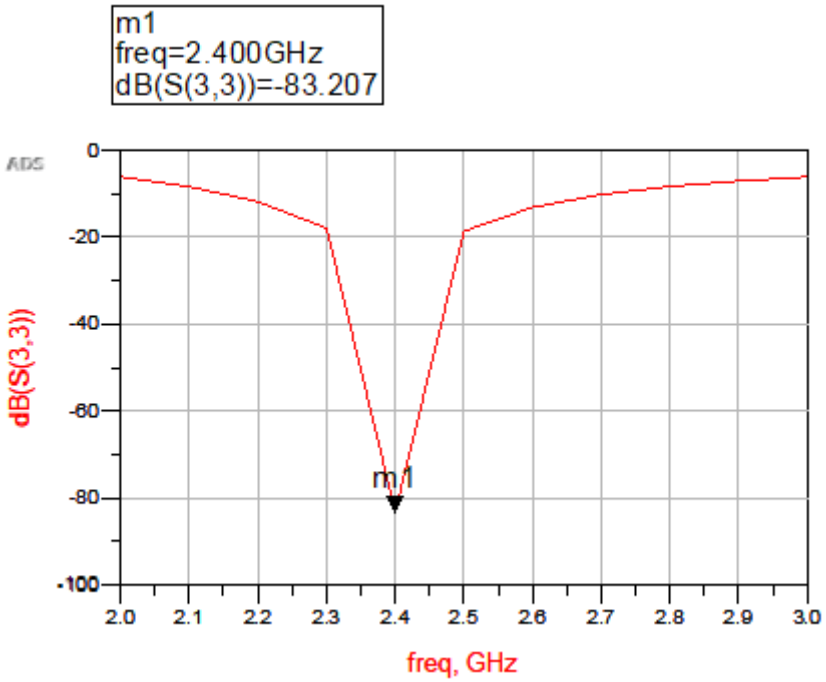
(a)

Rebuild in transmission line.



Covert to microstrip by line calculator.




m1
freq=2.400GHz
dB(S(3,3))=-83.207
ADS
0
-20
-40
-60
-80
-100
dB(S(3,3))
m1
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
2.8
2.9
3.0
freq, GHz