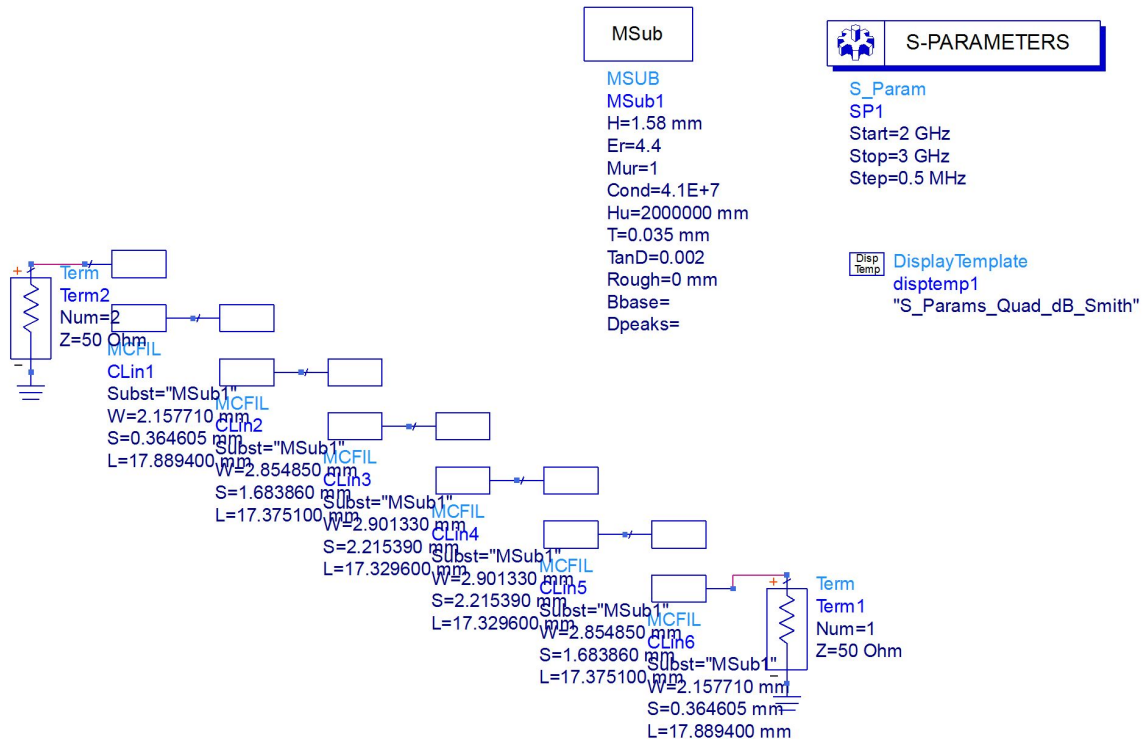


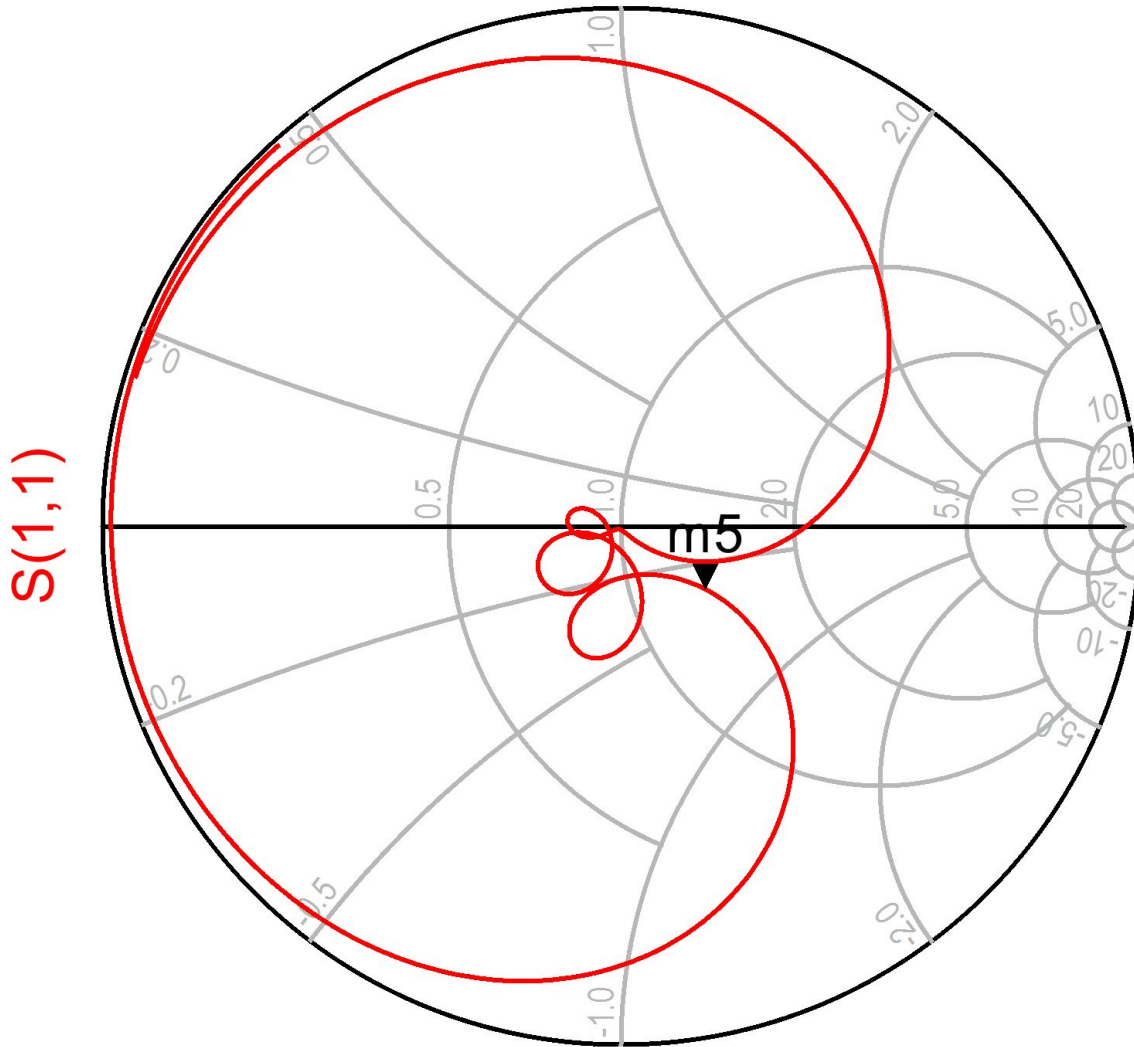
Basic Schematic(without optimization)



Response

m5
freq=2.400GHz
S(1,1)=0.203 / -36.691
impedance = Z0 * (1.339 - j0.338)

Input Reflection Coefficient



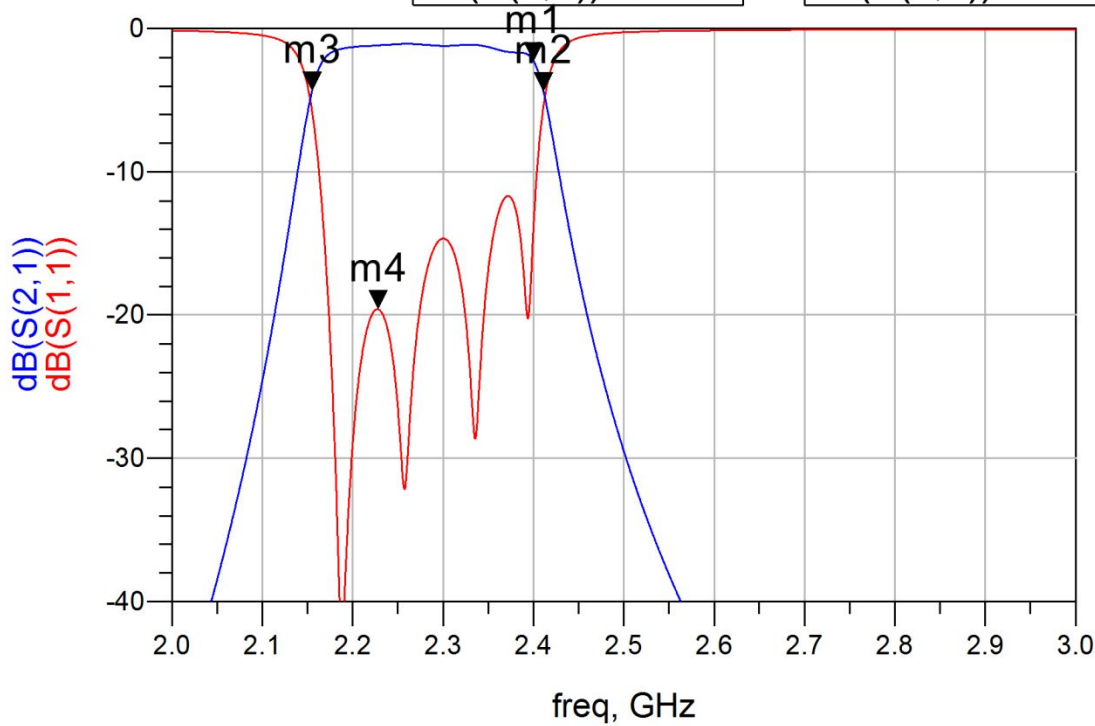
freq (2.000GHz to 3.000GHz)

m4
freq=2.228GHz
dB(S(1,1))=-19.622

m3
freq=2.155GHz
dB(S(2,1))=-4.359

m1
freq=2.400GHz
dB(S(2,1))=-2.288

m2
freq=2.411GHz
dB(S(2,1))=-4.399



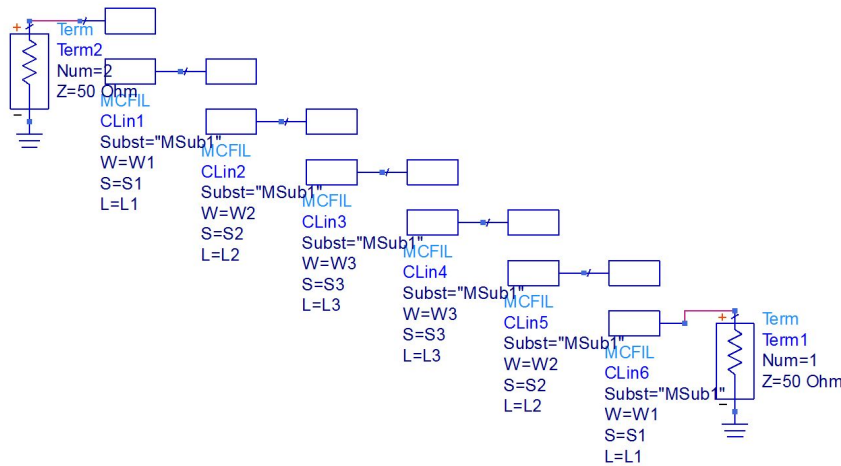
Schematic(optimized)

VAR VAR1 W1=1.23042 mm {o} S1=422.164 um {o} L1=17.169 mm {o}	VAR VAR2 W2=2.46844 mm {o} S2=920.164 um {o} L2=16.5947 mm {o}	VAR VAR3 W3=2.74704 mm {o} S3=1.27935 mm {o} L3=16.5679 mm {o}
--	---	---

S-PARAMETERS

S_Param
SP1
Start=2 GHz
Stop=3 GHz
Step=0.5 MHz

DisplayTemplate
disptemp1
"S_Params_Quad_dB_Smith"



MSub
MSUB
MSub1
H=1.58 mm
Er=4.4
Mur=1
Cond=4.1E+7
Hu=2000000 mm
T=0.035 mm
TanD=0.002
Rough=0 mm
Bbase=
Dpeaks=

OPTIM

Optim
Optim 1
Optim Type=Gradient
MaxIters=50
DesiredError=0.0
StatusLevel=4
FinalAnalysis="None"
NormalizeGoals=yes
SetBestValues=yes
SaveSolns=yes
SaveGoals=yes
SaveOptimVars=no
UpdateDataset=yes
SaveNominal=no
SaveAllIterations=no
UseAllOptVars=yes
UseAllGoals=yes

GOAL

Goal
OptimGoal1
Expr="dB(S(1,1))"
SimInstanceName="SP1"
Weight=1

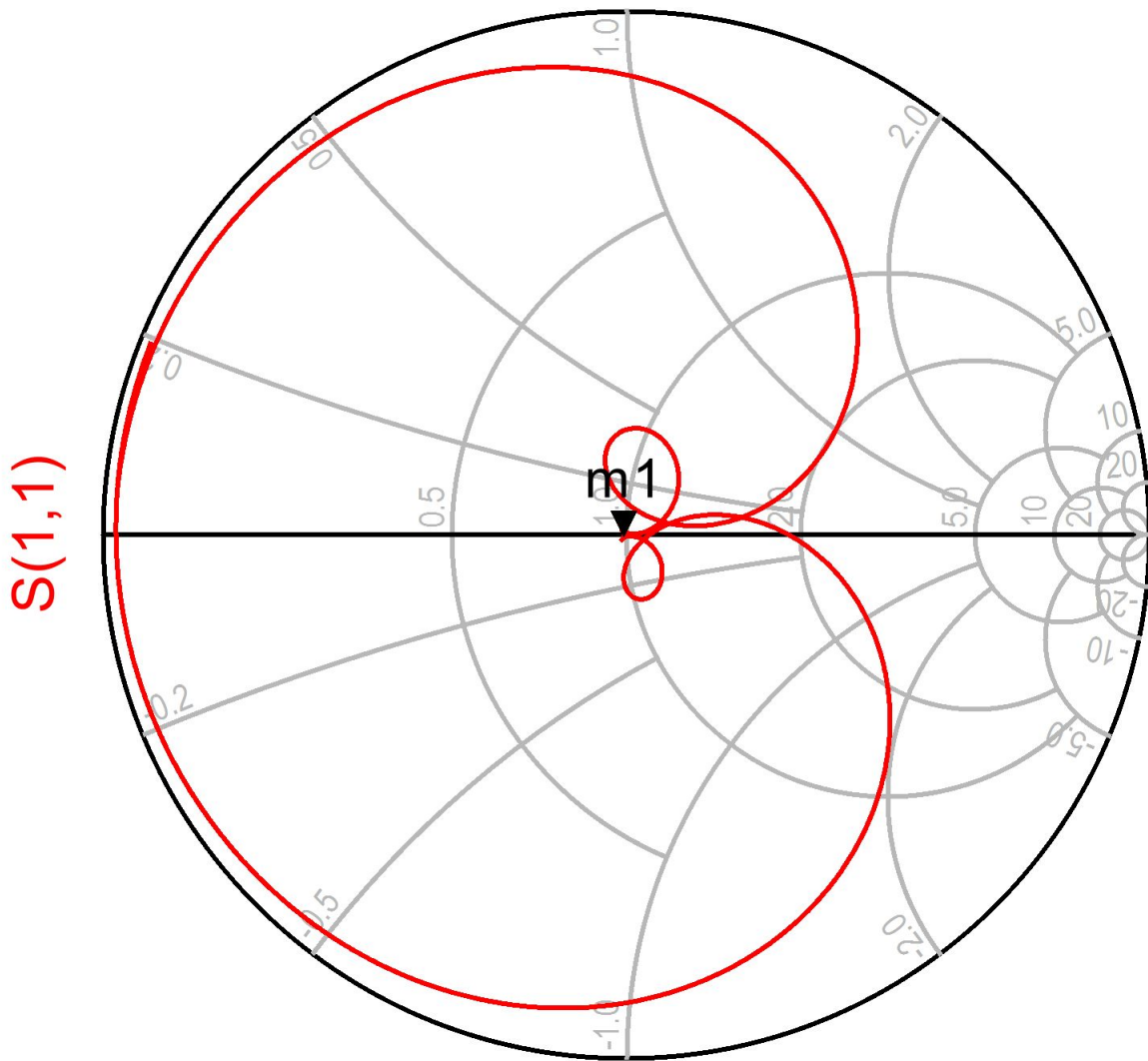
GOAL

Goal
OptimGoal2
Expr="dB(S(2,1))"
SimInstanceName="SP1"
Weight=1

Response(optimized)

m1
freq=2.400GHz
S(1,1)=0.006 / -141.932
optlter=28
impedance = $Z_0 * (0.990 - j0.008)$

Input Reflection Coefficient



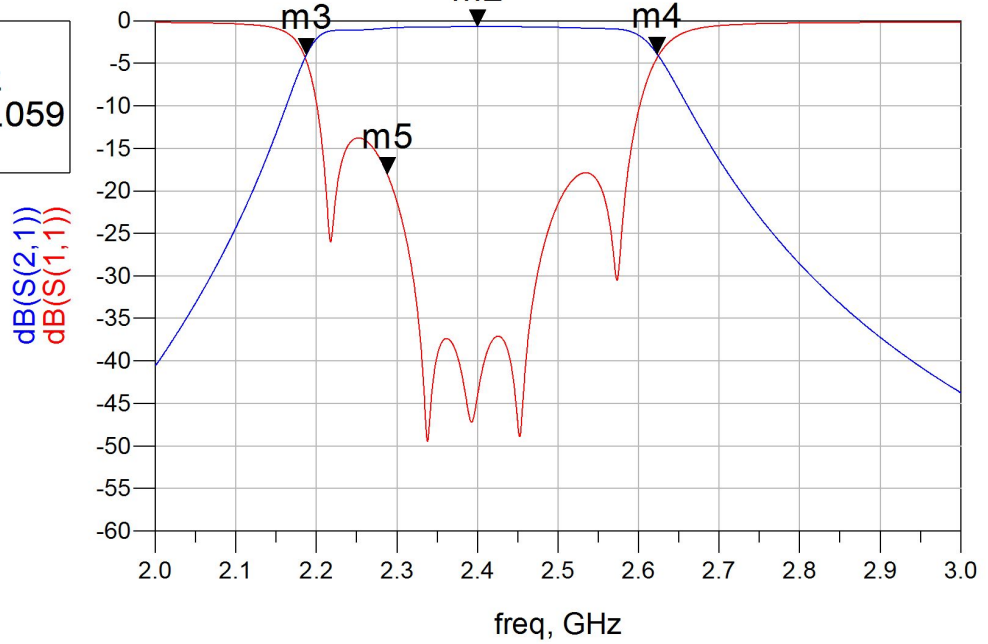
freq (2.000GHz to 3.000GHz)

m3
freq=2.188GHz
dB(S(2,1))=-4.020
optlter=28

m2
freq=2.400GHz
dB(S(2,1))=-0.709
optlter=28

m4
freq=2.623GHz
dB(S(2,1))=-3.910
optlter=28

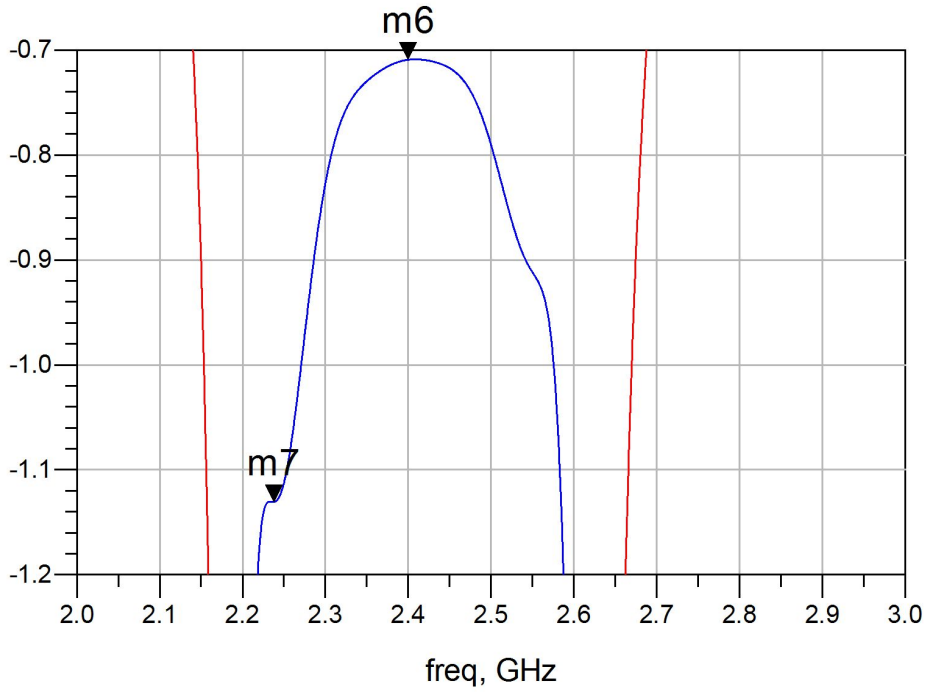
m5
freq=2.288GHz
dB(S(1,1))=-18.059
optlter=28



m6
freq=2.400GHz
dB(S(2,1))=-0.709
optlter=28

m7
freq=2.237GHz
dB(S(2,1))=-1.131
optlter=28

dB(S(2,1))
dB(S(1,1))

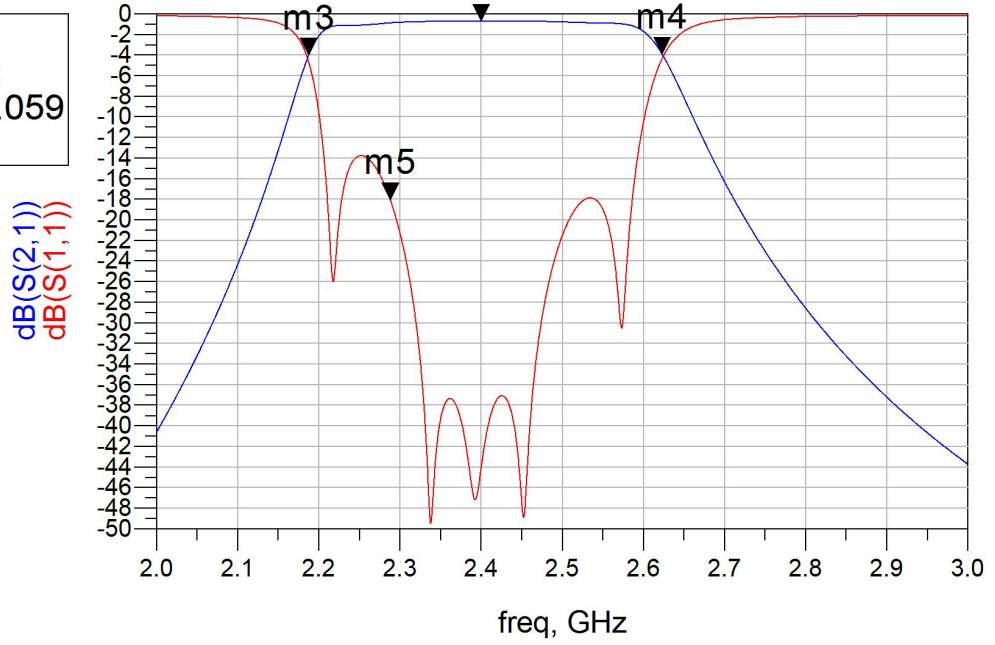


m3
freq=2.188GHz
dB(S(2,1))=-4.020
optlter=28

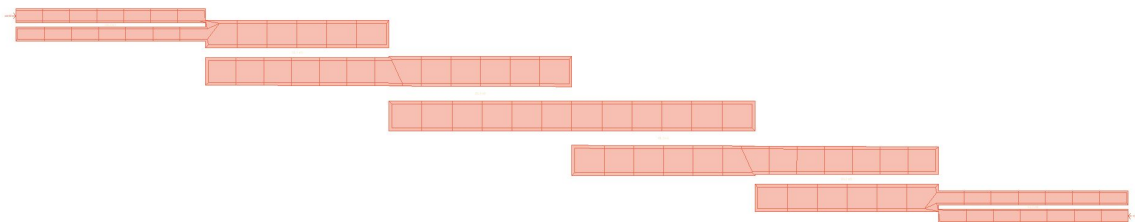
m2
freq=2.400GHz
dB(S(2,1))=-0.709
optlter=28

m4
freq=2.623GHz
dB(S(2,1))=-3.910
optlter=28

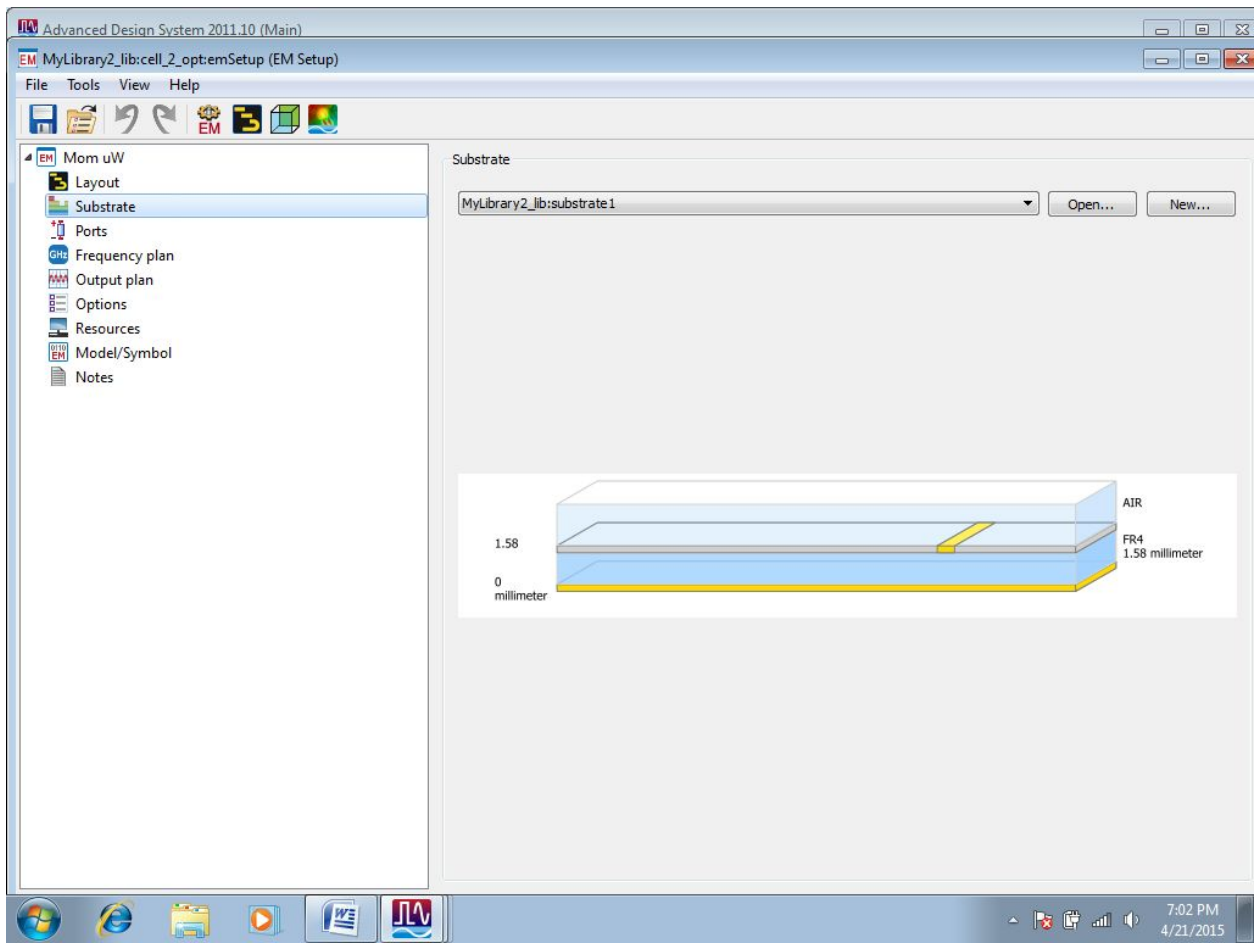
m5
freq=2.288GHz
dB(S(1,1))=-18.059
optlter=28

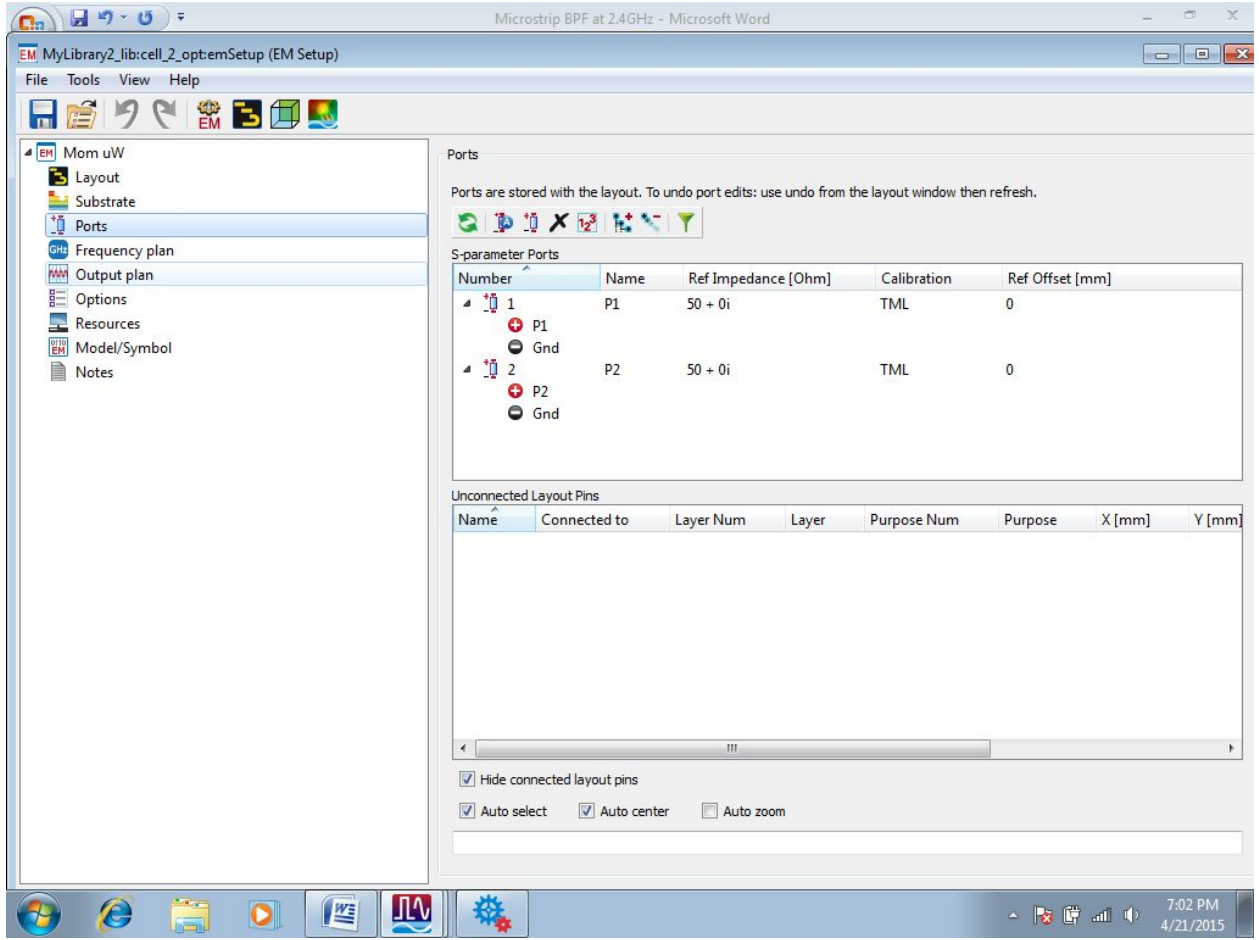


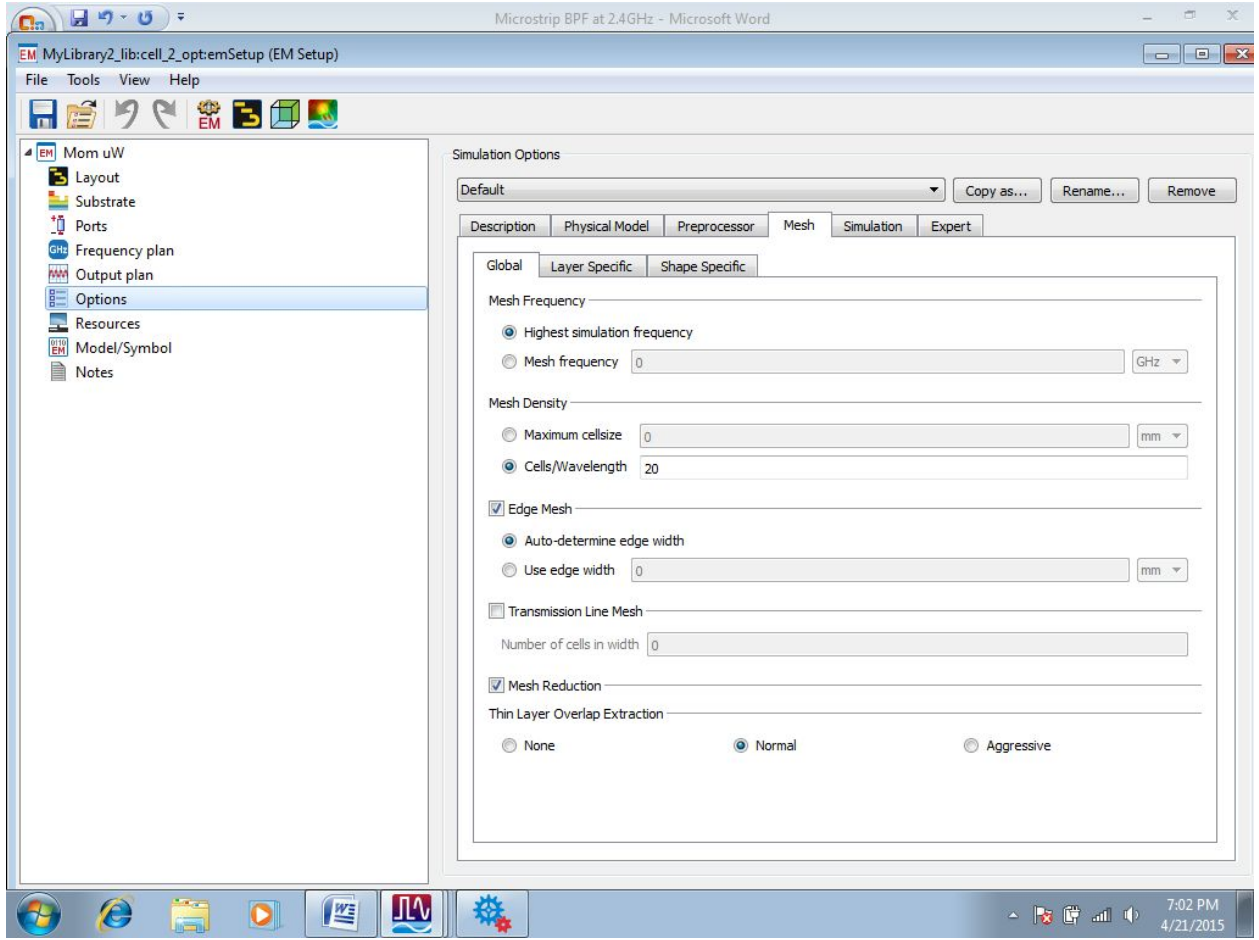
Layout



EM Details







Microstrip BPF at 2.4GHz - Microsoft Word

substrate1 [MyLibrary2_lib] (Substrate):2

File Technology View Window Help

Substrate Name: substrate1

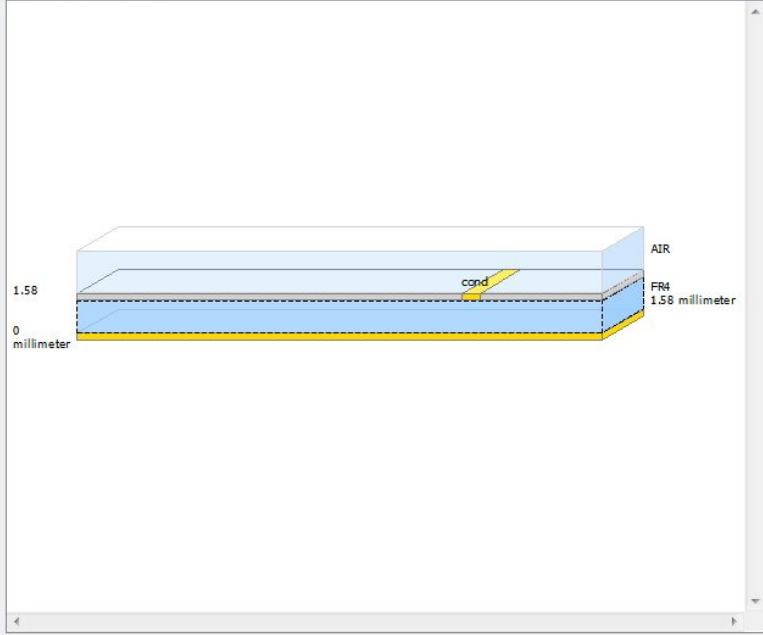
Use right mouse context menus to add or delete substrate items.
Select items on the substrate and view their properties below.

Substrate Layer

Material: FR4

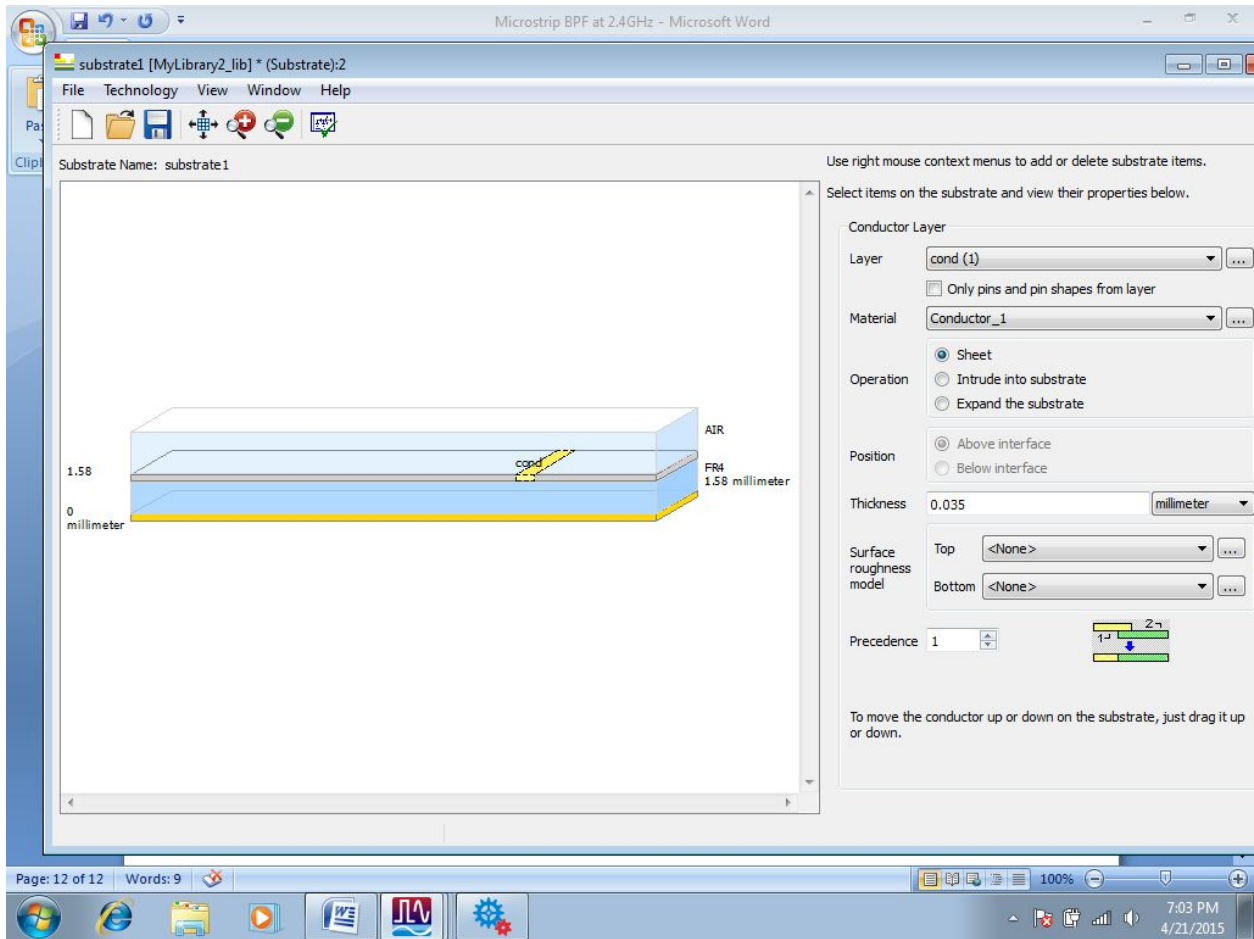
Thickness: 1.58 millimeter

Bounding area layer: <inherit from substrate>



The diagram shows a 3D perspective of a substrate layer. It consists of a top layer labeled 'AIR', a middle layer labeled 'FR4 1.58 millimeter', and a bottom layer labeled 'cond'. A vertical dimension line on the left indicates a thickness of '1.58' and '0 millimeter'.

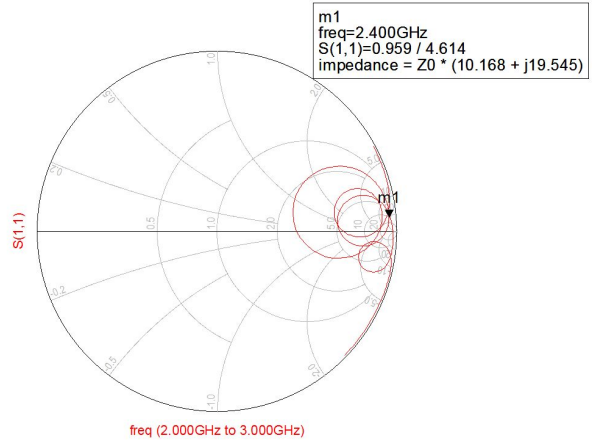
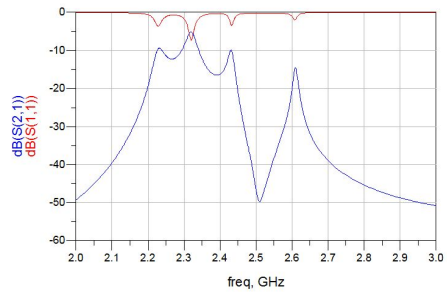
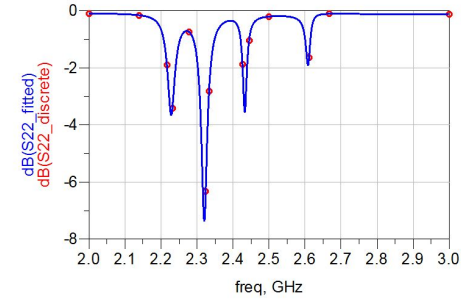
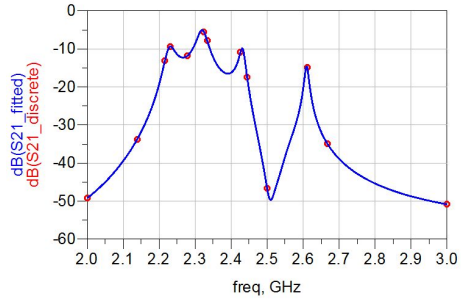
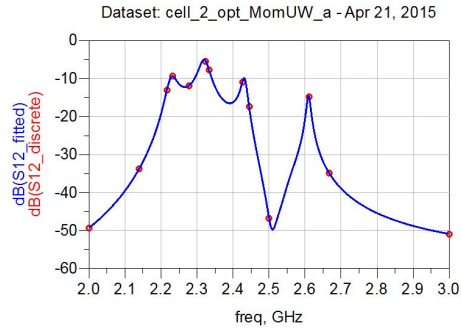
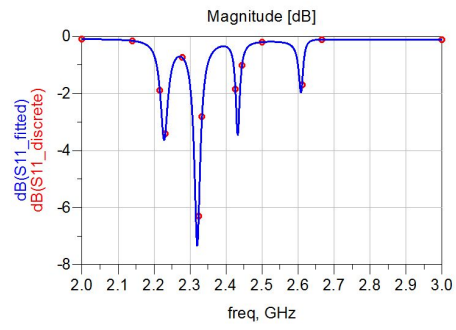
Windows taskbar: 7:03 PM, 4/21/2015



Response

Discrete Frequencies vs. Fitted (AFS or Linear)

Adaptively Fitted Points Discrete Frequency Points



m4
freq=2.323GHz
dB(S(1,1))=-6.869

m3
freq=2.400GHz
dB(S(1,1))=-0.363

m2
freq=2.400GHz
dB(S(2,1))=-16.278

