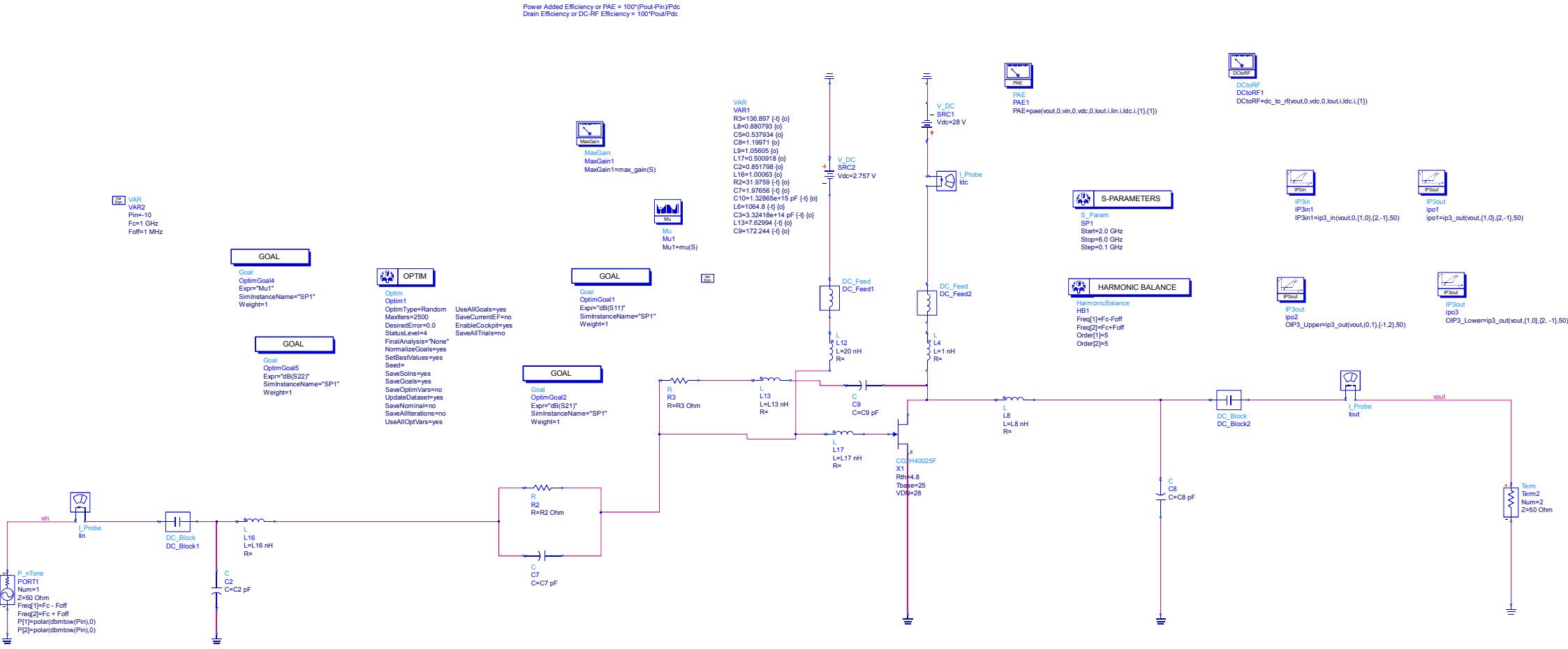
Power Added Efficiency or PAE = 100*(Pout-Pin)/Pdc
Drain Efficiency or DC-RF Efficiency = 100*Pout/Pdc
VAR
VAR2
Pin=-10
Fc=1 GHz
Foff=1 MHz
GOAL
Goal
OptimGoal4
Expr="Mu1"
SimInstanceName="SP1"
Weight=1
GOAL
Goal
OptimGoal5
Expr="dB(S22)"
SimInstanceName="SP1"
Weight=1
OPTIM
Optim
Optim1
OptimType=Random
MaxIters=2500
DesiredError=0.0
StatusLevel=4
FinalAnalysis="None"
NormalizeGoals=yes
SetBestValues=yes
Seed=
SaveSolns=yes
SaveGoals=yes
SaveOptimVars=no
UpdateDataset=yes
SaveNominal=no
SaveAllIterations=no
UseAllOptVars=yes
UseAllGoals=yes
SaveCurrentEF=no
EnableCockpit=yes
SaveAllTrials=no
GOAL
Goal
OptimGoal1
Expr="dB(S11)"
SimInstanceName="SP1"
Weight=1
GOAL
Goal
OptimGoal2
Expr="dB(S21)"
SimInstanceName="SP1"
Weight=1
MaxGain
MaxGain1
MaxGain1=max_gain(S)
Mu
Mu1
Mu1=mu(S)
VAR
VAR1
R3=136.897 {-t} {o}
L8=0.880793 {o}
C5=0.537934 {o}
C8=1.19971 {o}
L9=1.05605 {o}
L17=0.500918 {o}
C2=0.851798 {o}
L16=1.00063 {o}
R2=31.9759 {-t} {o}
C7=1.97656 {-t} {o}
C10=1.32865e+15 pF {-t} {o}
L6=1064.8 {-t} {o}
C3=3.32418e+14 pF {-t} {o}
L13=7.62994 {-t} {o}
C9=172.244 {-t} {o}
V_DC
SRC2
Vdc=2.757 V
V_DC
SRC1
Vdc=28 V
I_Probe
Idc
DC_Feed
DC_Feed1
DC_Feed
DC_Feed2
L
L12
L=20 nH
R=
L
L4
L=1 nH
R=
R
R3
R=R3 Ohm
L
L13
L=L13 nH
R=
C
C9
C=C9 pF
L
L17
L=L17 nH
R=
CG2H40025F
X1
Rth=4.8
Tbase=25
VDN=28
L
L8
L=L8 nH
R=
C
C8
C=C8 pF
DC_Block
DC_Block2
I_Probe
Iout
vout
Term
Term2
Num=2
Z=50 Ohm
R
R2
R=R2 Ohm
C
C7
C=C7 pF
vin
I_Probe
Iin
DC_Block
DC_Block1
L
L16
L=L16 nH
R=
C
C2
C=C2 pF
P_nTone
PORT1
Num=1
Z=50 Ohm
Freq[1]=Fc - Foff
Freq[2]=Fc + Foff
P[1]=polar(dbmtow(Pin),0)
P[2]=polar(dbmtow(Pin),0)
PAE
PAE1
PAE=pae(vout,0,vin,0,vdc,0,Iout.i,Iin.i,Idc.i,{1},{1})
DCtoRF
DCtoRF1
DCtoRF=dc_to_rf(vout,0,vdc,0,Iout.i,Idc.i,{1})
S-PARAMETERS
S_Param
SP1
Start=2.0 GHz
Stop=6.0 GHz
Step=0.1 GHz
IP3in
IP3in1
IP3in1=ip3_in(vout,0,{1,0},{2,-1},50)
IP3out
ipo1
ipo1=ip3_out(vout,{1,0},{2,-1},50)
HARMONIC BALANCE
HarmonicBalance
HB1
Freq[1]=Fc-Foff
Freq[2]=Fc+Foff
Order[1]=5
Order[2]=5
IP3out
ipo2
OIP3_Upper=ip3_out(vout,(0,1),{-1,2},50)
IP3out
ipo3
OIP3_Lower=ip3_out(vout,{1,0},{2, -1},50)