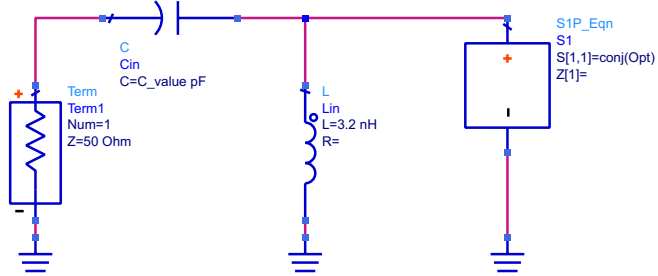
CREATE INPUT MATCHING NETWORK: Step 2



The device will be matched for minimum noise figure at 2 GHz.

1) The input reflection of "S1" is set to the complex conjugate of the impedance to be matched to 50 Ohms (in this case, "Opt", the optimum noise match). The inductor is set to 3.2nH, from Match1.dsn.

2) The capacitor is swept until the reactive part of the input impedance is eliminated (see InputMatch.dds).

SIMULATIONS

VARIABLES

Var Eqn

VAR
VAR1
Opt=polar(0.444,98.626)
C_value=0

"C_value" is defined here and set to 0. The actual values used in simulation are set in the ParamSweep component.

S-PARAMETERS

S_Param
SP1
Freq=2 GHz

PARAMETER SWEEP

ParamSweep
Sweep1
SweepVar="C_value"
SimInstanceName[1]="SP1"
SimInstanceName[2]=
SimInstanceName[3]=
SimInstanceName[4]=
SimInstanceName[5]=
SimInstanceName[6]=
Start=2.5
Stop=3
Step=0.1

S-parameter simulation is run at a single frequency (2GHz), while the capacitor value is swept.