dc simulation

DC1

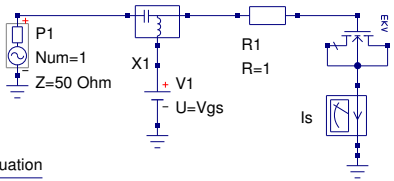
number	C_parallel_plate
1	6.9e-14

S parameter simulation

SP1
Type=const
Values=[1MHz]

Parameter sweep

SW1
Sim=SP1
Type=lin
Param=Vgs
Start=-2
Stop=2
Points=81



Equation

Eqn1
PL_Cap=PlotVs(Cap, Vgs)
y=stoy(S)
Omega=2*pi*frequency
Cap=imag(y[1,1])/Omega
Rin=real(y[1,1])/(imag(y[1,1])*imag(y[1,1]))
L=1e-6
W=20e-6
Cox=3.45e-3
C_parallel_plate=W*L*Cox
PL_Cap_ratio=PlotVs(Cap/C_parallel_plate, Vgs)

Vgs	frequency	Rin
-0.15	1e6	5.18
-0.1	1e6	5.25
-0.05	1e6	5.31
0	1e6	5.37
0.05	1e6	5.43
0.1	1e6	5.49