VDD

Vdd
1.2

GND

VDD

L1
30n
m=1

C1
65f
m=1

R1
6.9k
m=1

R4
20k
m=1

R2
17
m=1

Vout

C4
50f
m=1

GND

nfet_01v8_lvt
id=?
gm=?
M2
G
B
D
S
LVT
1 x 45 / 0.15
Id_xm1

GND

I0
.4m

M1
nfet_01v8_lvt
id=?
gm=?
nf=1
D
B
G
S
LVT
1 x 45 / 0.15

GND

M3
nfet_01v8_lvt
id=?
gm=?
nf=1
D
B
G
S
LVT
1 x 45 / 0.15

GND

VGS1
AC 1 sin(0 0.01 2400MEG 0 0 0)

GND

R3
50
m=1

C5
10p
m=1

L3
1n
m=1

C2
2p
m=1

GND

10k
R5
m=1

C3
1pf
m=1

GND

L2
1n
m=1

GND

annotate_me

SPICE1
.lib /research/pdk/open_pdks/share/pdk/sky130A/libs.tech/ngspice/sky130.lib.spice tt
.control
**tran 1ps 100n
ac lin 1k 1E9 5E9
plot db(v(Vout))
**plot v(Vout)
write Diff_LNA_one_part.raw
save all
.endc