



life.augmented

# **RF3L05150CB4\_REV1\_0**

## **Model information**

**Keysight Advanced Design System Model  
Generic Netlist Model**




STModelSimulation

STMicroelectronics

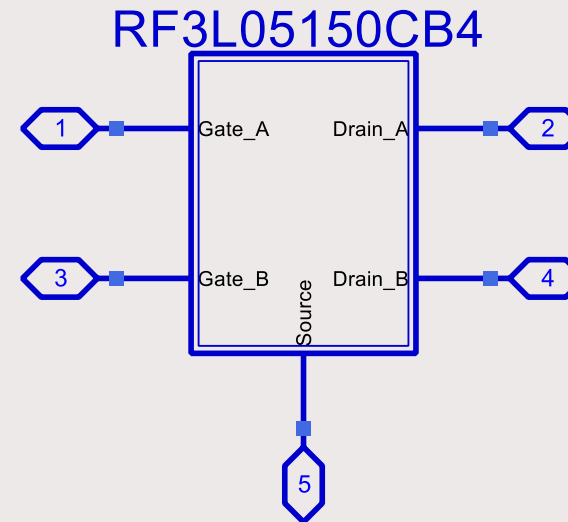
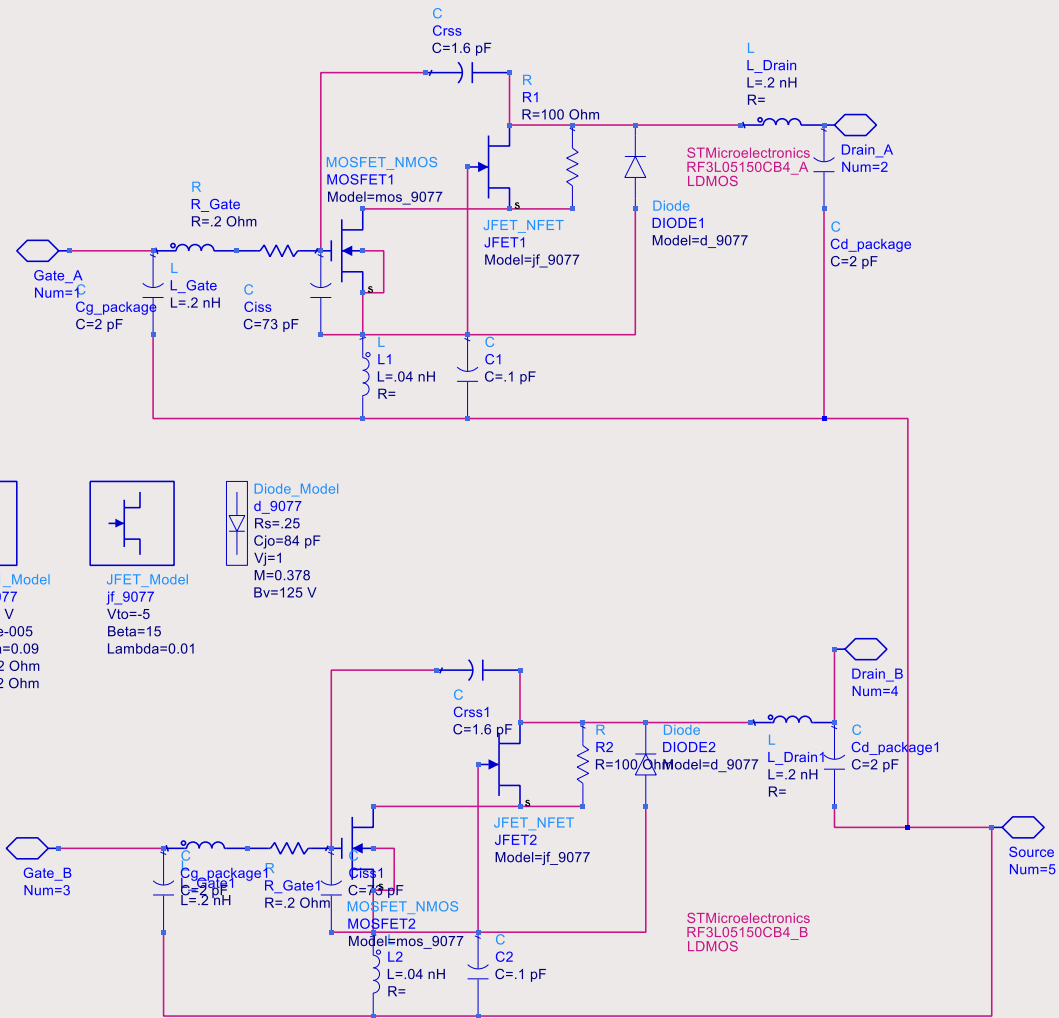
August 7 2020

 RF3L05150CB4\_rev1\_0.zip



 GenericNetlist  
 README  
 RF3L05150CB4\_rev1\_0\_wrk

# Model configuration



# Generic netlist

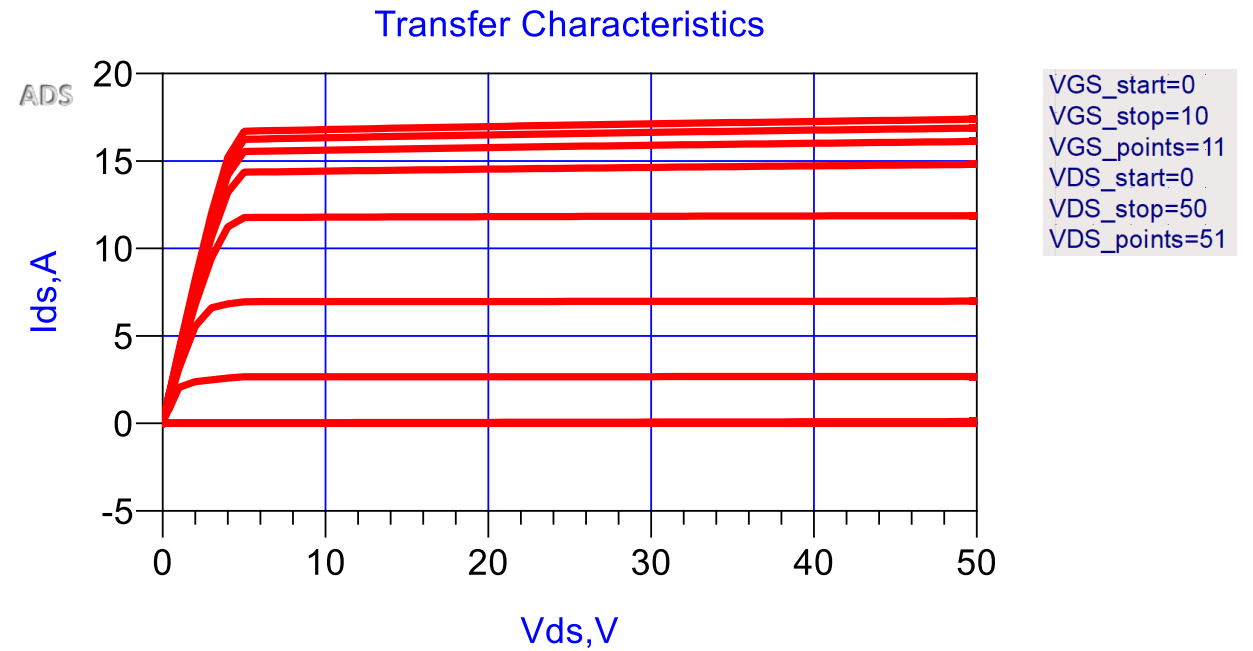
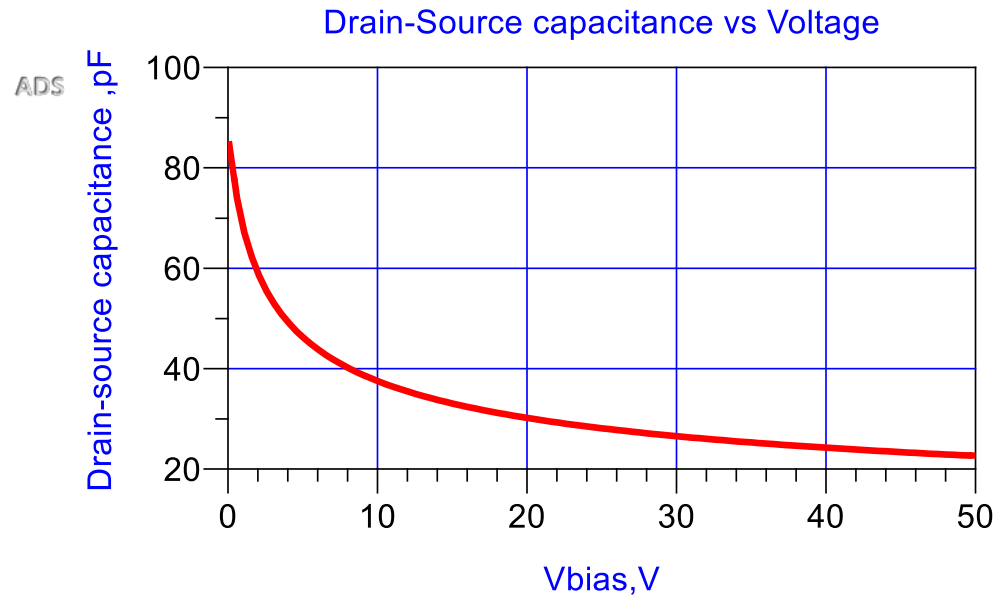
## OneSide

```
*RF3L05150CB4_ONESIDE
*08/07/2020
*STMicroelectronics
*port 1 = GATE , 2 = Drain , 3 = Source
*
.SUBCKT RF3L05150CB4 10 20 30
LGATE 10 11 .2N
RGATE 11 12 .2
CG 10 30 2P
CRSS 12 17 1.6P
CISS 12 14 73P
LS 14 30 0.04N
CS 14 30 .1P
R 17 13 100
LD 17 20 .2N
CD 20 30 2P
MOS 13 12 14 14 mos_3L05150 L=.6UM W= 95mM
JFET 17 14 13 jf_3L05150
DBODY 14 17 d_3L05150

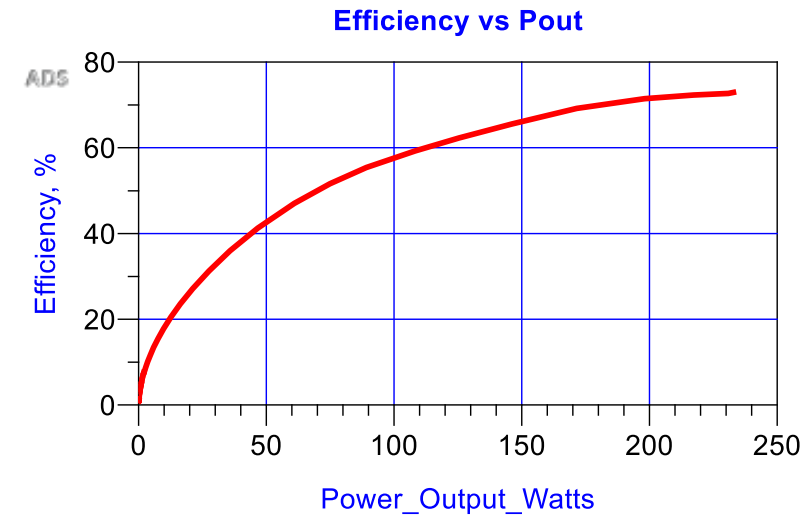
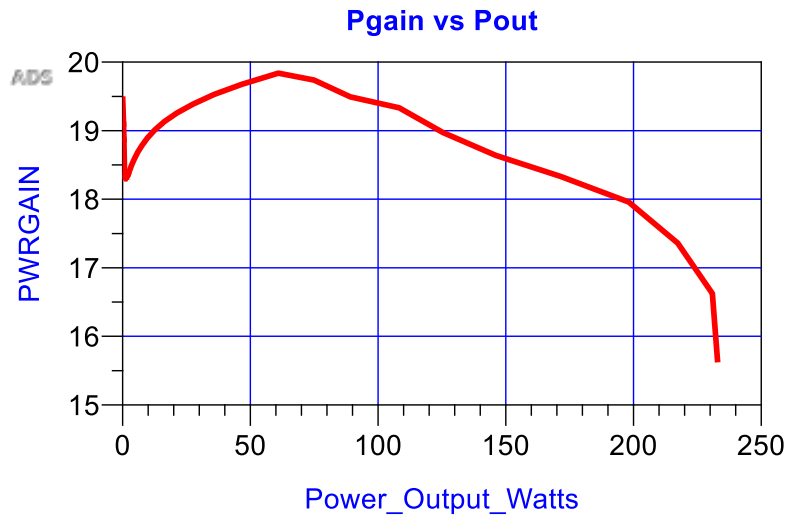
.MODEL mos_3L05150 nmos (vto=2.9 KP=3.6E-5 LAMBDA=0.09 RD=0.102 RS=0.102)
.MODEL jf_3L05150 njf (VTO=-5 BETA=15 LAMBDA=.01)
.MODEL d_3L05150 d (CJO=84p RS=0.25 VJ=1 M=0.378 BV=125)

.ENDS
```

# Example simulations one side



# Example simulations, 1 GHz Push-pull

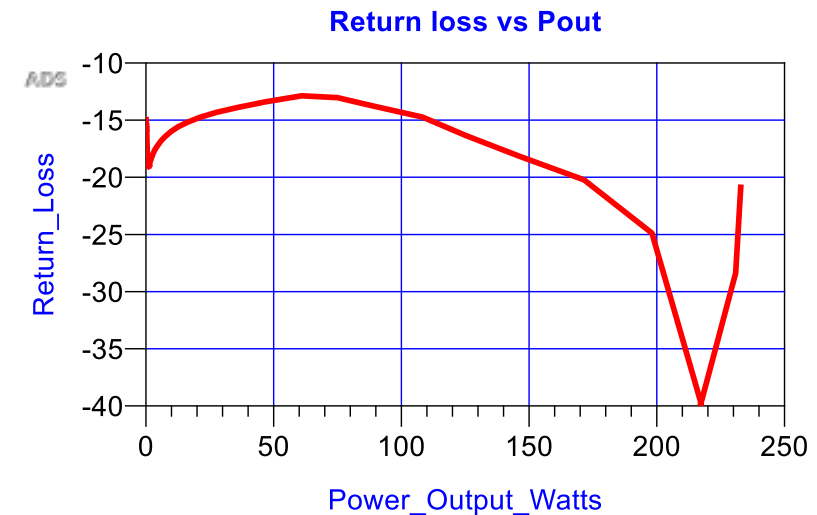


**Zin, Gate-Gate**

RF_freq	Rs	Xs
100.000	1.509	-33.141
200.000	1.294	-16.436
300.000	1.261	-10.702
400.000	1.017	-7.957
500.000	1.067	-5.846
600.000	1.025	-4.606
700.000	0.886	-3.781
800.000	0.860	-2.967
900.000	0.972	-2.344
1000.000	0.959	-1.818

**Z drain load, Drain-Drain**

RF_freq	Rs_load	Xs_load
100.000	25.870	5.102
200.000	23.062	8.912
300.000	19.693	11.051
400.000	15.979	12.575
500.000	13.482	12.375
600.000	11.110	11.758
700.000	8.910	11.051
800.000	7.566	10.280
900.000	6.369	9.404
1000.000	5.481	8.563



# Thank you